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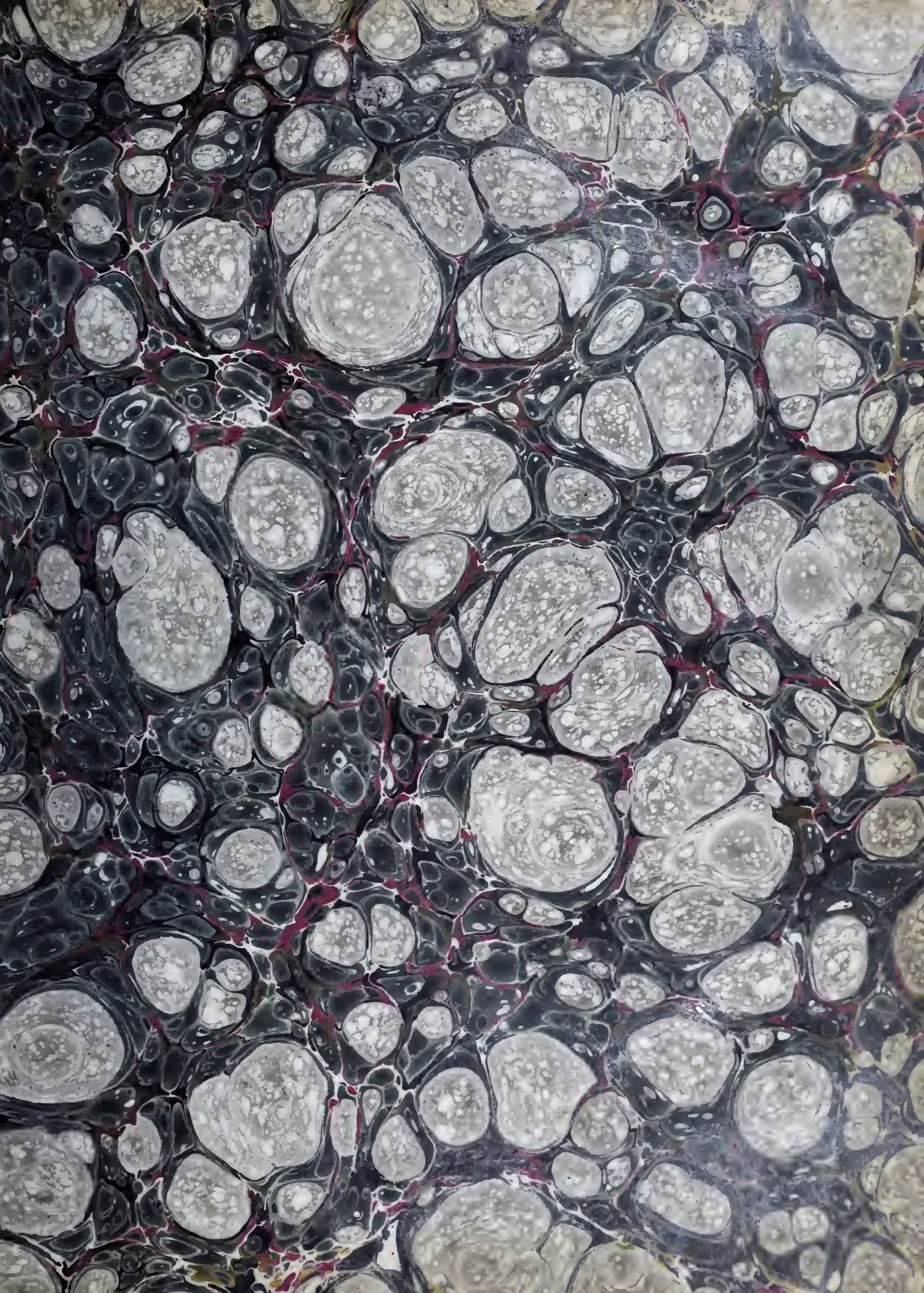

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Encyclopædia Britannica.

Hydrographical ‖ Hydromel.

HYDROGRAPHICAL Charts or Maps, more usually called sea-charts, are projections of some part of the sea, or coast, for the use of navigation. In these are laid down all the rhumbs or points of the compass, the meridians, parallels, &c. with the coasts, capes, islands, rocks, shoals, shallows, &c. in their proper places and proportions.

HYDROGRAPHY, the art of measuring and describing the sea, rivers, canals, lakes, &c.—With regard to the sea, it gives an account of its tides, counter-tides, soundings, bays, gulfs, creeks, &c.; as also of the rocks, shelves, sands, shallows, promontories, harbours; the distance and bearing of one port from another; with every thing that is remarkable, whether out at sea or on the coast.

HYDROLEA, a genus of plants belonging to the pentandria class, and in the natural method ranking with those of which the order is doubtful. See Botany *Index*.

HYDROMANCY, a method of divination by water, practised by the ancients. See Divination, N° 7.

HYDROMEL, honey diluted in nearly an equal weight of water. When this liquor has not fermented, it is called *simple hydromel;* and when it has undergone the spirituous fermentation, it is called the *vinous hydromel* or *mead.*

Honey, like all saccharine substances, vegetable or animal, is susceptible of fermentation in general, and particularly of the spirituous fermentation. To induce this fermentation, nothing is necessary but to dilute it sufficiently in water, and to leave this liquor exposed to a convenient degree of heat. To make good vinous hydromel or mead, the whitest, purest, and best tasted honey must be chosen; and this must be put into a kettle with more than its weight of water: a part of this liquor must be evaporated by boiling, and the liquor scummed, till its consistence is such that a fresh egg shall be supported upon its surface without sinking more than half its thickness into the liquor; then the liquor is to be strained and poured through a funnel into a barrel: this barrel, which ought to be nearly full, must be exposed to a heat as equable as is possible, from 20 to 27 or 28 degrees of Mr Reaumur's thermometer, taking care that the bung-hole be slightly covered, but not closed. The phenomena of the spirituous fermentation will appear in this liquor, and will subsist during two or three

Hydromel ‖ Hydrophyllum.

months, according to the degree of heat; after which they will diminish and cease. During this fermentation, the barrel must be filled up occasionally with more of the same kind of liquor of honey, some of which ought to be kept apart on purpose to replace the liquor which flows out of the barrel in froth. When the fermentation ceases, and the liquor has become very vinous, the barrel is then to be put in a cellar and well closed. A year afterwards the mead will be fit to be put into bottles.

The vinous hydromel or mead is an agreeable kind of wine: nevertheless it retains long a taste of honey, which is unpleasing to some persons; but this taste it is said to lose entirely by being kept a very long time.

The spirituous fermentation of honey, as also that of sugar, and of the most of vinous liquors, when it is very saccharine, is generally effected with more difficulty, requires more heat, and continues longer, than that of ordinary wines made from the juice of grapes; and these vinous liquors always preserve a saccharine taste, which shows that a part only of them is become spirituous.

HYDROMETER, an instrument to measure the gravity, density, &c. of water and other fluids. For an account of different hydrometers, see Hydrodynamics.

HYDROMPHALUS, in *Medicine* and *Surgery*, a tumor in the navel, arising from a collection of water.

HYDROPHANES, or Oculus Mundi, a kind of precious stone, which becomes transparent in water, much esteemed by the ancients.

HYDROPHOBIA, an aversion or dread of water: a terrible symptom of the *rabies canina;* and which has likewise been found to take place in violent inflammations of the stomach and in hysteric fits. See Medicine *Index*.

HYDROPHYLACIA, a word used by Kircher and some others who have written in the same system, to express those great reservoirs of water which he places in the Alps and other mountains for the supply of rivers which run through the several lower countries. This he makes to be one of the great uses of mountains in the economy of the universe.

HYDROPHYLLAX, a genus of plants belonging to the tetrandria class. See Botany *Index*.

HYDROPHYLLUM, Water-leaf, a genus of plants

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Hydrophyllum || Hygrometer.

plants belonging to the pentandria class, and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*.

HYDROPS, in *Medicine*, the same with DROPSY.

HYDROSCOPE, an instrument anciently used for measuring time.

The hydroscope was a kind of water-clock, consisting of a cylindrical tube, conical at bottom: the cylinder was graduated, or marked out with divisions, to which the top of the water becoming successively continuous, as it trickled out at the vertex of the cone, pointed out the hour.

HYDROSTATICS, is that branch of physics which treats of the weight, pressure, and equilibrium of fluids. See HYDRODYNAMICS.

HYDROTHORAX, a collection of water in the breast. See MEDICINE *Index*.

HYDRUNTUM, in *Ancient Geography*, a noble and commodious port of Calabria, from which there was a shorter passage to Apollonia (Pliny). Famous for its antiquity, and for the fidelity and bravery of its inhabitants. Now Otranto, a city of Naples, at the entrance of the gulf of Venice. E. Long. 19. 15. N. Lat. 40. 12.

HYEMANTES, in the primitive church, offenders who had been guilty of such enormities, that they were not allowed to enter the porch of the churches with the other penitents, but were obliged to stand without, exposed to all the inclemency of the weather.

HYGEIA, in *Mythology*. See HEALTH.

HYGIEINE, Ὑγιεινη (formed of ὑγιης, "sound, healthy"), that branch of medicine which considers health, and discovers proper means and remedies, with their use, in the preservation of that state.

The objects of this branch of medicine are, the nonnaturals. See DIET, EXERCISE, &c.

HYGIEINE, more largely taken, is divided into three parts; prophylactice, which foresees and prevents diseases; synteritice, employed in preserving health; and analeptice, whose office is to cure diseases, and restore health.

HYGROMETER, an instrument for measuring the degrees of dryness or moisture of the atmosphere, in like manner as the barometer and thermometer measure its different degrees of gravity or warmth.

Though every substance which swells in moist, and shrinks in dry weather, is capable of becoming an hygrometer; yet this kind of instrument is far from being as yet arrived at such a degree of perfection as the barometers and thermometers. There are three general principles on which hygrometers have been constructed. 1. The lengthening and shortening of strings by dryness and moisture, or their twisting and untwisting by the same. 2. The swelling and shrinking of solid substances by moisture or dryness; and, 3. By the increase or decrease of the weight of particular bodies whose nature is to absorb the humidity of the atmosphere.

Hygrometers of three kinds.

Smeaton's.

I. On the first of these principles Mr Smeaton constructed an hygrometer greatly superior to any that had appeared before; and of which the following account is given in the 62d volume of the Philosophical Transactions.

"Having some years ago attempted to make an accurate and sensible hygrometer by means of a hempen cord of a considerable length, I quickly found, that though it was more than sufficiently susceptible of every change in the humidity of the atmosphere, yet the cord was upon the whole in a continual state of lengthening. Though this change was the greatest at first, yet it did not appear probable that any given time would bring it to a certainty; and furthermore, it seemed, that as the cord grew more determinate in mean length, the alteration by certain differences of moisture grew less. Now, as on considering wood, catgut, paper, &c. there did not appear to be a likelihood of finding any substance sufficiently sensible of differences of moisture that would be unalterable under the same degrees thereof; this led me to consider of a construction which would readily admit of an adjustment; so that, though the cord whereby the instrument is actuated may be variable in itself, both as to absolute length, and difference of length under given degrees of moisture, yet that, on supposition of a material departure from its original scale, it might be readily restored thereto; and, in consequence, that any number of hygrometers, similarly constructed, might, like thermometers, be capable of speaking the same language. Hygrometer.

"The two points of heat the more readily determinable in a thermometer, are the points of freezing and boiling water. In like manner, to construct hygrometers which shall be capable of agreement, it is necessary to establish two different degrees of a moisture which shall be as fixed in themselves, and to which we can have recourse as readily and as often as possible.

"One point is given by making the substance perfectly wet, which seems sufficiently determinable; the other is that of perfect dry, which I do not apprehend to be attainable with the same precision. A readiness to imbibe wet, so that the substance may be soon and fully saturated, and also a facility of parting with its moisture on being exposed to the fire to dry, at the same time, that neither immersion, nor a moderate exposition to the warmth of the fire, shall injure its texture, are properties requisite to the first mover of such an hygrometer, that in a manner exclude all substances that I am acquainted with, besides hempen and flaxen threads and cords, or substances compounded of them.

"Upon these ideas, in the year 1758, I constructed two hygrometers as nearly alike as possible, in order that I might have the means of examining their agreement or disagreement on similar or dissimilar treatment. The interval or scale between dry and wet I divided into 100 equal parts, which I call the degrees of this hygrometer. The point of 0 denotes perfect dry; and the numbers increase with the degrees of moisture to 100, which denotes perfect wet.

"On comparing them for some time, when hung up together in a passage or staircase, where they would be very little affected by fire, and where they would be exposed to as free an air as possible in the inside of the house, I found that they were generally within one degree, and very rarely differed two degrees; but as these comparisons necessarily took up some time, and were frequently interrupted by long avocations from home, it was some years before I could form a tolerable judgment of them. One thing I soon observed, not altogether

Hygrometer.

altogether to my liking, which was, that the flaxen cords made use of seemed to make so much resistance to the entry of small degrees of moisture (such as is commonly experienced within doors in the situation above mentioned), that all the changes were comprised within the first 30° of the scale; but yet, on exposing them to the warm steam of a wash-house, the index quickly mounted to 100. I was therefore desirous of impregnating the cords with something of a saline nature, which should dispose them more forcibly to attract moisture; in order that the index might, with the ordinary changes of the moisture in the atmosphere, travel over a greater part of the scale of 100. How to do this in a regular and fixed quantity, was the subject of many experiments and several years interrupted inquiry. At last I tried the one hereafter described, which seemed to answer my intention in a great measure; and though upon the whole it does not appear probable that ever this instrument will be made capable of such an accurate agreement as the mercurial thermometers are, yet if we can reduce all the disagreements of an hygrometer within $\frac{1}{40}$th part of the whole scale, it will probably be of use in some philosophical inquiries, in lieu of instruments which have not yet been reduced to any common scale at all.

Plates CCLXXVI. CCLXXVII. fig. 1. & 2.

"Fig. 1. and 2. ABC is an orthographic delineation of the whole instrument seen in front in its true proportion. DE is that of the profile, or instrument seen edgewise. FG in both represents a flaxen cord about 35 inches long, suspended by a turning peg F, and attached to a loop of brass wire at A, which goes down into the box cover H, and defends the index, &c. from injury; and by a glass exposes the scale to view.

Fig. 3.

"Fig. 3. shows the instrument to a larger scale, the upright part being shortened, and the box-cover removed; in which the same letters represent the same parts as in the preceding figures; GI are two loops or long links of brass wire, which lay hold of the index KL, moveable upon a small stud or centre K. The cord FG is kept moderately strained by a weight M of about half a pound avoirdupois.—It is obvious, that, as the cord lengthens and shortens, the extreme end of the index rises and falls, and successively passes over N 2 the scale disposed in the arch of a circle, and containing 100 equal divisions. This scale is attached to the brass sliding ruler QP, which moves upon the directing piece RR, fixed by screws to the board, which makes the frame or base of the whole; and the scale and ruler NQP is retained in any place nearer to or further from the centre K, as may be required by the screw S.

Fig. 4.

"Fig. 4. represents in profile the sliding piece and stud I (fig. 3.), which traverses upon that part of the index next the centre K; and which can, by the two screws of the stud, be retained upon any part of the index that is made parallel; and which is done for three or four inches from the centre, for that purpose. The stud is filed to the edges, like the fulcrum of a scale-beam; one being formed on the under side, the other on the upper, and as near as may be to one another. A hook formed at the lower end of the wire-loops CI, retains the index, by the lowermost edge of the stud; while the weight M hangs by a small hook upon the upper edge: by these means the index is kept steady and the cords strained by the weight, with very little friction or burthen upon the central stud K. Hygrometer.

Fig. 5.

"Fig. 5. is a parallelogram of plate-brass, to keep out dust, which is attached to the upper edge of the box-cover H; and serves to shut the part of the box-cover necessarily cut away, to give leave for the wire GI to traverse with the sliding stud nearer to or further from the centre of the index K; and where, in fig. 5. *a* is a hole of about an inch diameter, for the wire GI to pass through in the rising and falling of the index freely without touching; *b* is a slit of a lesser size, sufficient to pass the wire, and admit the cover to come off without deranging the cord or index; *cc* are two small screws applied to two slits, by which the plate slides lengthwise, in order to adapt the hole *c* to the wire GI, at any place of the stud I upon the index KL.

"1. In this construction, the index KL being 12 inches long, 4 inches from the extreme end are filed so narrow in the direction in which it is seen by the eye, that any part of these four inches lying over the divisions of the scale, becomes an index thereto. The scale itself slides four inches, so as to be brought under any part of the four inches of the index attenuated as above mentioned.

"2. The position of the directing piece RR is so determined as to be parallel to a right line drawn through 0 upon the scale, and the centre K of the index; consequently, as the attenuated part of the index forms a part of a radius or right line from the same centre, it follows, that whenever the index points to 0 upon the scale, though the scale is moved nearer to or further from the centre of the index, yet it produces no change in the place to which the index points.

"When the divided arch of the scale is at 10 inches from the centre (that is, at its mean distance); then the centre of the arch and the centre of the index are coincident. At other distances, the extremes of which are eight or twelve inches, the centre of the divisions, and the centre of the index pointing thereto, not being coincident, the index cannot move over the spaces *geometrically* proportionable to one another in all situations of the scale; yet the whole scale not exceeding 30° of a circle, it will be found on computation, that the error can never be so great as $\frac{1}{100}$th part of the scale, or 1° of the hygrometer; which in this instrument being considered as indivisible, the mechanical error will not be sensible.

"The cord here made use of is flax, and between $\frac{1}{10}$th and $\frac{1}{16}$th of an inch in diameter; which can be readily ascertained by measuring a number of turns made round a pencil or small stick. It is a sort of cord used in London for making nets, and is of that particular kind called by net-makers *flaxen three-threads laid*. A competent quantity of this cord was boiled in one pound avoirdupois of water, in which was put two pennyweights troy of common salt; the whole was reduced by boiling to six ounces avoirdupois, which was done in about half an hour. As this ascertains a given strength of the brine, on taking out the cord, it may be supposed that every fibre of the cord is equally impregnated with salt. The cord being dried, it will be proper to stretch it; which may be done so as to prevent it from untwisting, by tying

Hygrometer. three or four yards to two nails against a wall, in an horizontal position, and hanging a weight of a pound or two to the middle, so as to make it form an obtuse angle. This done for a week or more in a room, will lay the fibres of the cord close together, and prevent its stretching so fast after being applied to the instrument as it would otherwise be apt to do.

"The hygrometer is to be adjusted in the following manner. The box-cover being taken off to prevent its being spoiled by the fire, and choosing a day naturally dry, set the instrument nearly upright, about a yard from a moderate fire; so that the cord may become dry, and the instrument warm, but not so near as would spoil the finest linen by too much heat, and yet fully evaporate the moisture; there let the instrument stay till the index is got as low as it will go; now and then stroaking the cord betwixt the thumb and finger downwards, in order to lay the fibres thereof close together; and thereby causing it to lengthen as much as possible. When the index is thus become stationary, which will generally happen in about an hour, more or less as the air is naturally more or less dry, by means of the peg at top raise or depress the index, till it lies over the point *o*. This done, remove the instrument from the fire; and having ready some warm water in a tea-cup, take a middling camel's hair pencil, and dipping it in the water, gently anoint the cord till it will drink up no more, and till the index becomes stationary and water will have no more effect upon it, which will also generally happen in about an hour. If in this state the index lies over the degree marked 100, all is right: if not, slack the screw S, and slide the scale nearer to or further from the centre, till the point 100 comes under the index, and then the instrument is adjusted for use: but if the compass of the slide is not sufficient to effect this, as may probably happen on the first adjustment, slack the proper screws, and move the sliding stud I nearer to or further from the centre of the index, according as the angle formed by the index between the two points of dry or wet happens to be too small or too large for the scale."

Coventry's. On this principle, a simple hygrometer has been made by Mr Coventry of Southwark, London. It is not upon the most accurate construction, yet will act very sensibly in the common changes of the air. Fig. 6. represents the hygrometer as applied to a wall or board. A is a string of whip-cord, catgut, &c. of any length at pleasure: it is suspended on a bracket B, and kept extended by a weight at the bottom C. DD is a slip of wood, which with the bracket is fixed perpendicularly to a wall or side of a room. It has a straight line E drawn down in the middle of the board, serving to point out the divisions upon the edges of the two thin circular cards F and G. At the centre of the bottom of each of these cards is glued a piece of cork, through which the string A is drawn: These cork pieces serve to preserve the horizontal position of the cards. The upper card F is divided into 10 equal parts or divisions, and the under card G into 100 equal parts; the string A being measured into 10 equal parts, from the point of suspension H to the surface of the lower card I. The card F is hung at the first part, from H, and the card G at the 10th part from the same point: consequently, from the twisting and untwisting of the string A by the different changes of the air, the lower card G, from the mechanical principles of motion, will describe 10 revolutions for one of the upper card F; or when the lower card G has made one revolution, the upper card F will have described but the 10th part, or one of its divisions. From whence it appears, that by the assistance of the upper card F, an index is thereby obtained of the number of revolutions the lower card G performs, which are reckoned by the line E on the slip of wood.

Fig. 6.

Hygrometer.

Example. It must first be observed what division of the card F the line is against, suppose 3; and also what division of the lower card G is cut by the same line, suppose 10: it then appears, that the state of the hygrometer is thus, 3 degrees and 10 hundredths of another. If the whole 10 divisions of the card have passed the line E, the lower card G will have revolved 10 times, or 10 hundred parts, equal to 1000; the accuracy to which the principle of this simple contrivance answers. Before use, the hygrometer should be adjusted; to do which, the cards F and G are first set to the line E at the 0 of each, or commencement of the graduations: whatever direction the cards afterwards take, it must evidently be from the change to greater moisture or dryness in the air; and they will accordingly point it out.

Saussure's. On this principle, but with a degree of ingenuity and pains perhaps never before employed, an hygrometer has been constructed by M. de Saussure, professor of philosophy at Geneva. In his *Essais sur l'Hygrometrie*, in 4to, 1783, is an important detail on the subject of *hygrometry*; from which the following description of his hygrometer is taken. The author found by repeated experiments, that the difference between the greatest extension and contraction of a *hair*, properly prepared, and having a weight of about three grains suspended to it, is nearly $\frac{1}{10}$ of its whole length; that is, $3\frac{1}{2}$, or $3\frac{2}{3}$ lines in a foot. This circumstance suggested the idea of a new hygrometer: and, in order to render those small variations perceptible and useful, the following apparatus was constructed.

Fig. 7. is a representation of the whole instrument, with the hair and other appendages complete. The lower extremity of the hair *a b* is held by the chaps of the screw pincers *b*. These pincers are represented aside at B: by a screw at its end, it fastens into the nut of the bottom plate C. This nut of the plate turns independently of the piece that supports it, and serves to raise or depress the pincers B at pleasure.

Fig. 7.

The upper extremity *a* of the hair is held by the under chaps of the double pincers *a*, represented aside at A. These pincers fasten the hair below, and above fasten a very fine narrow slip of silver, carefully annealed, which rolls round the arbor or cylinder *d*, a separate figure of which is shown at DF. This arbor, which carries the needle or index *ee*, or E in the separate figure, is cut into the shape of a screw; and the intervals of the threads of this screw have their bases flat, and are cut squarely so as to receive the slip of silver that is fastened to the pincers *a*, and joined in this manner with the hair. M. Saussure observes, that hair alone fixed immediately to the arbor would not do; for it curled upon it, and acquired a stiffness that the counterpoise was not able to surmount. The arbor was cut in a screw form, in order that the slip of silver in winding

Hygrometer.

ing upon it should not increase the diameter of the arbor, and never take a situation too oblique and variable. The slip is fixed to the arbor by a small pin F. The other extremity of the arbor D is shaped like a pulley, flat at the bottom so as to receive a fine supple silken string, to which is suspended the counterpoise *g* in the large figure, and G in the side one. This counterpoise is applied to distend the hair; and acts in a contrary direction to that of the hair, and the moveable pincers to which the hair is fixed. If then the hair should be loaded with the weight of four grains, the counterpoise must weigh four grains more than the pincers. The arbor at one end passes through the centre of the dial, and turns therein, in a very fine hole, on a pivot made very cylindrical and well polished: at the other end is also a similar pivot, which turns in a hole made in the end of the arm *h* of the cock *h i*, HI. This cock is fixed behind the dial by means of the screw I.

The dial *k e e k*, divided into 360 degrees, is supported by two arms *l l;* these are soldered to two tubes, which inclose the cylindrical columns *m m m m*. The setting screws *n n* move upon these tubes, and serve thereby to fix the dial and arbor to any height required. The two columns which support the dial are firmly fastened to the case of the hygrometer, which rest upon the four screws *o o o o;* by the assistance of these screws, the instrument is adjusted, and placed in a vertical situation.

The square column *p p*, which rests upon the base of the hygrometer, carries a box *q*, to which is fixed a kind of port-crayon *r*, the aperture of which is equal to the diameter of the counterpoise *g*. When the hygrometer is to be moved from one place to another; to prevent a derangement of the instruments from the oscillations of the counterpoise, the box *q* and the port-crayon *r* must be raised up so as the counterpoise may fall into and be fixed in it, by tightening the screw *s* and the box and counterpoise together by the screw *t*. When the hygrometer is intended for use, the counterpoise must be disengaged by lowering the box, as may be conceived from the figure.

Lastly, at the top of the instrument is a curved piece of metal *x, y, z*, which is fastened to the three columns just described and keeps them together. It has a square hole at *y*, which serves to hang up the hygrometer by when required.

The variations of which this hygrometer is capable, are (all things besides equal) as much greater as the arbor round which the slip of silver winds is than a smaller diameter, and as the instrument is capable of receiving a longer hair. M. Saussure has had hygrometers made with hairs 14 inches long, but he finds one foot sufficient. The arbor is three-fourths of a line in diameter at the base between the threads of the screw or the part on which the slip winds. The variations, when a hair properly prepared is applied to it, are more than an entire circumference, the index describing about 400 degrees in moving from extreme dryness to extreme humidity. M. Saussure mentions an inconvenience attending this hygrometer, viz. its not returning to the same point when moved from one place to another; because the weight of three grains that keeps the silver slip extended, cannot play so exactly as to act always with the same precision against the arbor round which it winds. But this weight cannot be sensibly increased without still greater inconveniences: he therefore observes, that this hygrometer is well calculated for a fixed situation in an observatory, and for various hygrometrical experiments; since, instead of the hair, there may be substituted any other substance of which a trial may be wanted; and it may be kept extended by a counterpoise more or less heavy as they may require: but the instrument will not admit of being moved, nor serve even for experiments which may subject it to agitation.

Hygrometer.

To obviate the objection above mentioned, M. Saussure has contrived another apparatus more portable and convenient, and which, if not so extensive in its variations, is in fact very firm, and not in the least liable to be deranged by carriage and agitation. Fig. 8. is a representation of this hygrometer, which he calls the *portable hygrometer*, in distinction from the preceding, which he calls the *great hygrometer* or *the hygrometer with the arbor*. The material part of this instrument is its index *a b c e;* an horizontal view of which, and the arm that carries it, is seen in the separate figure GBDEF. This index carries in its centre D a thin tube hollow throughout, and projects out on each side of the needle. The axis which passes through it, and round which the index turns, is made thin in the middle of its length and thick at the ends; so that the cylindrical tube which it passes through touches it only at two points, and acts upon it only at its extremities.

Portable hygrometer by M. Saussure.

Fig. 8.

The part *d e* DE of the index serves to point out and mark on the dial the degrees of moisture and dryness; the opposite part *d b* DB serves to fix both the hair and counterpoise. This part which terminates in a portion of a circle, and is about a line in thickness, is cut on its edge in a double vertical groove, which makes this part similar to the segment of a pulley with a double neck. These two grooves, which are portions of a circle of two lines radius, and have the same centre with that of the index *d*, serve in one of them to contain the hair, and in the other the silk, to the end of which the counterpoise is suspended. The same index carries vertically above and below its centre two small screw-pincers, situated opposite to the two grooves: that above at *a*, opposite to the hindmost groove, serves to fix to the silk to which the counterpoise is suspended; and that below at *b*, opposite to the hithermost groove, serves to hold one of the ends of the hair. Each of these grooves has its partitions cut, as seen in the section B, and its bottom made flat in order that the hair and silk may have the greatest freedom possible. The axis of the needle DD goes through the arm *g f* GF, and it is fixed to this arm by the tightening screw *f* F. All the parts of the index should be in perfect equilibrium about its centre; so that when it is on its pivot without the counterpoise, it will rest indifferently in any position it may be placed in.

It must be understood, that when the hair is fixed by one of its extremities in the pincers *c*, and by the other end on the pincers *y* at the top of the instrument, it passes in one of the necks of the double pulley *b*, whilst the counterpoise to which the silk is fixed in *a* passes in the other neck of the same pulley: the counterpoise serves to keep the hair extended, and acts always in the same direction and with the same force, whatever

Hygrometer.

whatever the situation of the index may be. When therefore the dryness contracts the hair, it overpowers the gravity of the counterpoise, and the index descends: when, on the contrary, the humidity relaxes the hair, it gives way to the counterpoise, and the index ascends. The counterpoise should weigh but three grains; so that the index should be made very light and very easy in its motion, in order that the least possible force may move it and bring it back again to its point when drawn aside.

The dial *h e h* is a circular arch, the centre of which is the same with that of the index. This arch is divided into degrees of the same circle, or into the hundredths of the interval which is found between the limits of extreme dryness and extreme humidity. The interior edge of the dial carries at the distance *h i* a kind of projecting bridle or stay *i i*, made of brass wire, curved to the arch, and fixed in the points *i i*. This bridle retains and guards the index, at the same time leaving it to play with the requisite freedom. The screw-pincers *y*, in which is fastened the upper extremity of the hair, is carried by a moveable arm, which ascends and descends at pleasure the length of the frame KK. This frame is cylindrical everywhere else, except its being here flattened at the hinder part to about half its thickness, in order that the piece with the screw which carries the arm should not project out underneath, and that the arm may not turn. The arm may be stopped at any desired height by means of the pressing screw *x*. But as it is of use sometimes to be able to give the instrument a very small and accurate motion, so as to bring the index exactly to the part that may be wanted, the slide piece *l*, which carries the pincers *y*, to which the hair is fixed, is to be moved by the adjusting screw *m*.

At the base of the instrument is a great lever *n o p q*, which serves to fix the index and its counterpoise when the hygrometer is to be moved. The lever turns an axis *n*, terminated by a screw which goes into the frame; in tightening this screw, the lever is fixed in the desired position. When the motion of the index is to be stopped, the intended position is given to this lever, as represented in the dotted lines of the figure. The long neck *p* of the lever lays hold of the double pulley *b* of the index, and the short neck *o* of the counterpoise: the tightening screw *q* fastens the two necks at once. In confining the index, it must be so placed, that the hair be very slack; so that, if whilst it is moved the hair should get dry, it may have room to contract itself. Afterwards, when the instrument is placed for use, the first thing to be done is to relax the screw *n*, and turn back the double lever with great caution, taking equal care at the same time not to strain the hair. It is better to apply one hand to the index near its centre, whilst the other hand is disengaging the pulley and the counterpoise from the lever that holds them steady. The hook *r* serves to suspend a thermometer upon; it should be a mercurial one, with a very small naked bulb or ball, so as to show in the most sensible manner the changes of the air: it should be mounted in metal, and guarded in such a manner as not to vibrate so as to break the hair. Lastly a notch is made under the top of the frame *s*, to mark the point of suspension, about which the instrument is in equilibrium, and keeps a vertical situation.

All the instrument should be made of brass: though the axis of the index and its tube work more pleasantly together if made of bell-metal. Hygrometer.

The extent of this hygrometer's variations is not more than the fourth or fifth part of the hygrometer with the arbor. It may be augmented by making the segment of the pulley to which the hair is fixed of a smaller diameter; but then the hair, in moving about it, would fret and contract a stiffness, which would cause it to adhere to the bottom of the neck. M. Saussure is of opinion, that the radius of this pulley should not be less than two lines, at least that there should be adapted a plate of silver or some other contrivance; but then the hygrometer would be too difficult to construct, and it would require too much attention and care on the part of those who use it: his object was, to make an instrument generally useful, and easy and convenient in its use. The hygrometer with the arbor may be used for observations which require an extreme sensibility.

The variations of this instrument may be augmented by making it higher, because in that case longer hairs might be adapted: but it would be then less portable. Besides, if the hair is too long, when observations are made in the open air, the wind has too great an effect upon it, and thus communicates to the index inconvenient vibrations. It is not proper therefore to make it more than a foot in height. When it is of this dimension, an hair properly prepared can be applied to it, and its variations from extreme dryness to extreme humidity are 80 or even 100 degrees; which on a circle of 3 inches radius forms an extent sufficient for observations of this kind. M. Saussure has even made smaller instruments that may be carried conveniently in the pocket, and to make experiments with under small receivers: they were but seven inches high by two inches of breadth; which, notwithstanding their variations, were very sensible.

Thus much for the construction of the various parts of the instrument. The limits of this work will not admit of our inserting the whole of M. Saussure's subsequent account of the preparation of the hair, the manner of determining the limits of extreme humidity and of extreme dryness, the pyrometrical variations of the hair, and the graduation of the hygrometer. The following extract must therefore suffice.

In the preparation of the hair, it was found necessary to free it of a certain unctuosity it always has in its natural state, which in a great measure deprives it of its hygrometrical sensibility. A number of hairs are boiled in a ley of vegetable alkali; and among these are to be chosen for use such as are most transparent, bright, and soft; particular precautions are necessary for preventing the straining of the hair, which renders it unfit for the intended purpose.

The two fixed points of the hygrometer are the extremes both of moisture and dryness. The former is obtained by exposing the instrument to air completely saturated with water; and this is effected by placing it in a glass receiver standing in water, the sides of which are kept continually moistened. The point on the dial, at which the hand after a certain interval remains stationary, is marked 100. The point of extreme dryness, not absolute dryness, for that does not exist,

Hygrometer.

exist, but the greatest degree of it that can be obtained, is produced by introducing repeatedly into the same receiver containing the instrument, and standing now upon quicksilver, certain quantities of deliquescent alkaline salts, which absorb the moisture of the air. The highest point to which the hand can be brought by this operation, not only when it will rise no higher, but when it becomes retrograde from the dilatation occasioned by heat, is called 0; and the arch between these two points is divided into 100 equal parts, being degrees of the hygrometer. The arch *p p*, upon which the scale is marked in the instrument (represented in fig. 2.) being part of a circle of three inches diameter; hence every degree measures about one-third of a line. In the stationary hygrometer, fig. 1. the scale upon the complete circular dial is so much larger, that every degree measures about five lines; but this M. Saussure considers so far from being a perfection, that it is rather an inconvenience; since the instrument becomes thereby so very susceptible of the least impression, that there is even no approaching it without a sensible variation. The thermometer, adapted as before mentioned, serves to correct the changes of temperature: towards the extreme of dryness, 1° of the thermometer produces on the hair an effect of half a degree of the hygrometer, but towards the extreme of moisture, the same difference of temperature causes an effect no less than 3° on the hygrometer. He constructed two tables, that gave the intermediate hygrometrical variations for single degrees of the thermometer at different parts of the scale.

The whole range of the atmospherical variations takes in about 75° of this scale; a dryness of more than 25° being always the effect of art. The sensibility of this instrument is so very great, that being exposed to the dew, he mentions that it varies above 40° in about 20 minutes of time. Being removed from a very moist into a very dry air, it varied in one instance no less than 35° in three minutes. He says that its variations were always found uniform in different instruments suspended in different parts of the same atmosphere. This hygrometer is considered by the author as possessed of all the properties requisite in such an instrument. These are, 1. That the degrees in the scale be sufficiently large, and to point out even the least variation in the dryness or moisture of the atmosphere. 2. That it be quick in its indications. 3. That it be at all times consistent with itself; viz. that in the same state of the hair it always points to the same degree. 4. That several of them agree with one another. 5. That it be affected only by the aqueous vapours. 6. That its variations be ever proportionate to the changes in the air.

But after all it must be observed, that a considerable degree of trouble and delicacy is requisite in the preparation of the hair, and it is very fragile; circumstances which may prevent it from coming into general use among common observers, although probably it may be the best in principle of any yet made.

Instead of hairs or cat-gut, of which hygrometers of the first kind are commonly made, Cassebois, a Benedictine monk at Mentz, proposed to make such hygrometers of the gut of a silk-worm. When that insect is ready to spin, there are found in it two vessels proceeding from the head to the stomach, to which they adhere, and then bend towards the back, where they form a great many folds. The part of these vessels next the stomach is of a cylindric form, and about a line in diameter. These vessels contain a gummy sort of matter from which the worm spins its silk; and, though they are exceedingly tender, means have been devised to extract them from the insect, and to prepare them for the above purpose. When the worm is about to spin, it is thrown into vinegar, and suffered to remain there twenty-four hours; during which time the vinegar is absorbed into the body of the insect, and coagulates its juices. The worm being then opened, both the vessels, which have now acquired strength, are extracted; and, on account of their pliability, are capable of considerable extension. That they may not, however, become too weak, they are stretched only to the length of about fifteen or twenty inches. It is obvious that they must be kept sufficiently extended till they are completely dry. Before they attain to that state, they must be freed, by means of the nail of the finger, from a slimy substance which adheres to them. Such a thread will sustain a weight of six pounds without breaking, and may be used for an hygrometer in the same manner as cat-gut; but we confess that we do not clearly perceive its superiority.

Hygrometer.

II. On the second general principle, namely, that of the swelling of solid bodies by moisture, and their contraction by dryness, M. de Luc's instrument is the best. He makes choice of ivory for the construction of his hygrometer, because he finds that, being once wetted, ivory regularly swells by moisture, and returns exactly to the same dimensions when the moisture is evaporated, which other bodies do not. This hygrometer is represented in fig. 9. where *a a b* is an ivory tube open at the end *a a*, and close at *b*. It is made of a piece of ivory taken at the distance of some inches from the top of a pretty large elephant's tooth, and likewise at the same distance from its surface and from the canal which reaches to that point. (This particular direction is given, that the texture of the ivory in all different hygrometers may be the same, which is of great importance). This piece is to be bored exactly in the direction of its fibres; the hole must be very straight, its dimensions $2\frac{1}{2}$ lines in diameter, and 2 inches 8 lines in depth from *a a* to *c*. Its bore is then to be exactly filled with a brass cylinder, which however, must project somewhat beyond the ivory tube; and thus it is to be turned on a proper machine, till the thickness of the ivory is exactly $\frac{3}{10}$ of a line, except at the two extremities. At the bottom *b* the tube ends in a point; and at the top *a a* it must for about two lines be left a little thicker, to enable it to bear the pressure of another piece put upon it. Thus the thin or hygrometrical part of the tube will be reduced to $2\frac{1}{2}$ French inches, including the concavity of the bottom. Before this piece is used, it must be put into water, so that the external part alone may be wetted by it; and here it is to remain till the water penetrates to the inside, and appears in the form of dew, which will happen in a few hours. The reason of this is, that the ivory tube remains somewhat larger ever after it is wetted the first time.

De Luc's.

Fig. 9.

For this hygrometer, a glass tube must be provided about 14 inches long, the lower end of which is shown in *d d c c*. Its internal diameter is about $\frac{1}{3}$ of a line.

If

Hygrometer.

If now the ivory tube is exactly filled with mercury, and the glass one affixed to it, as the capacity of the former decreases by being dried, the mercury will be forced up into the glass one.

The piece *ffgg* is intended to join the ivory with the glass tube. It is of brass, shaped as in the figure. A cylindrical hole is bored through it, which holds the glass tube as tight as possible without danger of breaking it; and its lower part is to enter with some degree of difficulty into the ivory pipe. To hinder that part of the tube which incloses the brass piece from being affected by the variations of the moisture, it is covered with a brass verrel represented in *hhii*. The pieces must be united together with gum-lac or mastich.

The introduction of the mercury is the next operation. For this purpose, a slip of paper three inches wide is first to be rolled over the glass tube, and tied fast to the extremity nearest the ivory pipe. A horse-hair is then to be introduced into the tube, long enough to enter the ivory pipe by an inch, and to reach three or four inches beyond the extremity of the glass one. The paper which has been shaped round the tube must now be raised, and used as a funnel to pour the mercury into the instrument, which is held upright. The purest quicksilver is to be used for this purpose, and it will therefore be proper to use that revived from cinnabar. It easily runs into the tube; and the air escapes by means of the horse-hair, assisted with some gentle shakes. Fresh mercury must from time to time be supplied, to prevent the mercurial tube from being totally emptied; in which case, the mercurial pellicle which always forms by the contact of the air, would run in along with it.

Some air-bubbles generally remain in the tube; they may be seen through the ivory pipe, which is thin enough to have some transparency. These being collected together by shaking, must be brought to the top of the tube, and expelled by means of the horse-hair. To facilitate this operation, some part of the mercury must be taken out of the tube, in order that the air may be less obstructed in getting out, and the horse-hair have a free motion to assist it. Air, however, cannot be entirely driven out in this manner. It is the weight of the mercury with which the tube is for that reason to be filled, which in time completes its expulsion, by making it pass through the pores of the ivory. To hasten this, the hygrometers are put into a proper box. This is fixed nearly in a vertical direction to the saddle of a horse, which is set a trotting for a few hours. The shakes sometimes divide the column of mercury in the glass tube, but it is easily re-united with the horse-hair. When upon shaking the hygrometer vertically, no small tremulous motion is any longer perceived in the upper part of the column, one may be sure that all the air is gone out.

The scale of this hygrometer may be adjusted, as soon as the air is gone out, in the following manner. The instrument is to be suspended in a vessel of water cooled with ice, fresh quantities of which are to be added as the former melts. Here it is to remain till it has sunk as low as it will sink by the enlargement of the capacity of the ivory tube, owing to the moisture it has imbibed. This usually happens in seven or eight hours, and it is to be carefully noted. In two or three hours the mercury begins to ascend, because the moisture passes into the cavity, and forces it up. The lowest station of the mercury is then to be marked 0; and for the more accurate marking the degrees on the scale, M. de Luc always chose to have his hygrometrical tube made of one which had formerly belonged to a thermometer. The reason of this is, that in the thermometer the expansion of the mercury by heat had been already determined. The distance between the thermometrical points of melting ice and boiling water at 27 French inches of the barometer was found to be 1937 parts. The bulb of this preparatory thermometer was broke in a bason, in order to receive carefully all the mercury that it contained. This being weighed in nice scales amounted to 1428 grains. The hygrometer contained 460 grains of the same mercury. Now it is plain, that the extent of the degrees on the hygrometer, ought to be to that of the degrees on the preparatory thermometer as the different weights of the mercury contained in each; consequently 1428 : 460 : 1937 : 624 nearly; and therefore the corresponding intervals ought to follow the same proportion: and thus the length of a scale was obtained, which might be divided into as many parts as he pleased.

Hygrometer.

Fig. 10. is a representation of De Luc's hygrometer when fully constructed. In elegance it far exceeds Smeaton's or any other, and probably also in accuracy; for by means of a small thermometer fixed on the board along with it, the expansion of the mercury by heat may be known with great accuracy, and of consequence how much of the height of the mercury in the hygrometer is owing to that cause, and how much to the mere moisture of the atmosphere. Fig. 10.

M. de Luc having continued his inquiries further into the modifications of the atmosphere, mentions in his *Idée sur la Météorologie* another hygrometer, which he finds to be the best adapted to the *measure* of local humidity. Of all the hygroscopic substances which he tried for this purpose, that which answers the best is a slip of whalebone cut transversely to the direction of the fibres, and made extremely thin; for on this depends its sensibility. A slip of 12 inches in length and a line in breadth, he has made so thin as to weigh only half a grain; and it may be made still thinner, but is then of too great sensibility, being affected even by the approach of the observer. This slip is kept extended by a small spring, and the variations in its length are measured by a vernier division, or by, which is perhaps better, an index on a dial plate: the whole variation from extreme dryness to extreme moisture is about $\frac{1}{8}$ of its length.

In these hygrometers, which are made by the instrument-makers in London, the slip of whalebone is mounted in a frame very similar to that belonging to M. Saussure's hygrometer before described (see fig. 7.). The only material difference is, that a small concentric wire spring is used, instead of a counterpoise, to keep the slip of whalebone extended. M. Saussure had tried such a spring applied to his hairs; but the weakest spring he found too strong for the hair; and he was further apprehensive, that the variations which the cold, heat, and the weather infallibly make, would suffer from the force of the springs.

M. de Luc, in the hygrometers he formerly made, as before described (made of ivory), had graduated them

Hygrometer.

from one fixed point only, that of extreme *moisture*, which is obtained by soaking them in water. He has now very ingeniously contrived to fix the other extreme, that of *dryness*: but this being producible only by means of strong fires, such as hygrometers cannot support, he uses an intermediate body, quicklime; which after having been deprived, by force of fire, of all its own humidity, has the property of slowly imbibing humidity again from the bodies in its neighbourhood; and whose capacity is such that all the vapour that can be contained in a quantity of air equal to its own bulk, can give it no sensible humidity. These hygrometers, inclosed with a large quantity of fresh burnt lime in lumps, acquire in three weeks the same degree of dryness with the lime, which cannot differ sensibly from *extreme dryness*.

M. de Saussure makes choice of hairs, prepared by maceration in alkaline lye. M. de Luc shows that hairs, and all other animal or vegetable substances, taken *lengthwise*, or in the direction of their fibres, undergo *contrary* changes from different variations of humidity: that, when immersed in water, they lengthen at first, and afterwards shorten; that when they are near the greatest degree of humidity, if the moisture is increased, they shorten themselves; if it is diminished, they lengthen themselves first before they contract again. These irregularities, which obviously render them incapable of being true measures of humidity, he shows to be the necessary consequence of their organic reticular structure.

M. de Saussure takes his point of extreme moisture from the vapours of water under a glass bell, keeping the sides of the bell continually moistened: and affirms, that the humidity is there constantly the same in all temperatures; the vapours even of *boiling* water having no more effect than those of cold. M. de Luc shows, on the contrary, that the differences of humidity under the bell are very great, though M. Saussure's hygrometer was incapable of discovering them; and that the real undecomposed vapour of boiling water has the directly opposite effect to that of cold, the effect of *extreme dryness:* and on this point he mentions an interesting fact, communicated to him by Mr Watt, viz. that wood cannot be employed in the steam engine for any of those parts where the vapour of the boiling water is confined, because it dries so as to crack, just as if exposed to the fire. In M. de Luc's work above mentioned there are striking instances related, in which the imperfection of M. Saussure's hygrometer led him into false conclusions respecting phenomena, and into erroneous theories to account for them.

III. On the third principle, namely, the alteration of the weight of certain substances by their attracting the moisture of the air, few attempts have been made, nor do they seem to have been attended with much success. Sponges dipped in a solution of alkaline salts, and some kinds of paper, have been tried. These are suspended to one end of a very accurate balance, and counterpoised by weights at the other, and show the degrees of moisture or dryness by the ascent or descent of one of the ends. But, besides that such kinds of hygrometers are destitute of any fixed point from whence to begin their scale, they have another inconvenience (from which indeed Smeaton's is not free, and which has been found to render it erroneous), namely, that all saline substances are destroyed by long continued exposure to the air in very small quantities, and therefore can only imbibe the moisture for a certain time. Sulphuric acid has therefore been recommended in preference to the alkaline or neutral salts, and, indeed, for such as do not choose to be at the trouble of constructing a hygrometer on the principles of Mr Smeaton or De Luc, this will probably be found the most easy and accurate. Fig. 11. represents an hygrometer of this kind. A is a small glass cup containing a small quantity of oil of vitriol, B an index counterpoising it, and C the scale; where it is plain, that as the oil of vitriol attracts the moisture of the air, the scale will descend, which will raise the index, and *vice versa*. This liquor is exceedingly sensible of the increase or decrease of moisture. A single grain, after its full increase, has varied its equilibrium so sensibly, that the tongue of a balance, only an inch and a half long, has described an arch one-third of an inch in compass (which arch would have been almost three inches if the tongue had been one foot), even with so small a quantity of liquor; consequently, if more liquor, expanded under a large surface, were used, a pair of scales might afford as nice an hygrometer as any kind yet invented. A great inconvenience, however, is, that as the air must have full access to the liquid, it is impossible to keep out the dust, which, by continually adding its weight, must render the hygrometer false; add to this, that even oil of vitriol itself is by time destroyed, and changes its nature, if a small quantity of it is continually exposed to the air.

Hygrometer. Fig. 11.

The best hygrometer upon this principle, and for ascertaining the quantity as well as the degree of moisture in the variation of the hygrometer, is of the contrivance of Mr Coventry, Southwark, London. The account he has favoured us with is as follows. "Take two sheets, of fine tissue paper, such as is used by hatters; dry them carefully at about two feet distance from a tolerably good fire, till after repeatedly weighing them in a good pair of scales no moisture remains. When the sheets are in this perfectly dry state, reduce them to exactly 50 grains; the hygrometer is then fit for use. The sheets must be kept free from dust, and exposed a few minutes in the open air; after which it may be always known by weighing them the exact quantity of moisture they have imbibed.

"For many years the hygrometer has (says Mr Coventry) engrossed a considerable share of my attention; and every advantage proposed by others, either as it respected the substances of which the instrument was composed, or the manner in which its operations were to be discerned, has been impartially examined. But (adds he) I have never seen an hygrometer so simple in itself, or that would act with such certainty or so equally alike, as the one I have now described. The materials of which it is composed being thin, are easily deprived wholly of their moisture; which is a circumstance essentially necessary in fixing a *datum* from which to reckon, and which, I think, cannot be said of any substance hitherto employed in the construction of hygrometers; with equal facility they imbibe or impart the humidity of the atmosphere, and show with the greatest exactness when the least alteration takes place."

Hygrometer.

When the paper is prepared, as already described, it will serve, without the trouble of drying, as a standard for any number of sheets intended for the same purpose. But then the sheets must be kept together in the open air for a few hours; because whatever alteration may take place by this exposure, the paper already weighed must have undergone the same; being consequently in the same state, they must be cut to the same weight.

For easier weighing the paper, take a piece of round tin or brass the size of a crown piece, through the centre of which drill a hole, and also three others round it at equal distances: then cut about one hundred papers; and after putting them under the tin or brass, drive though each hole a strong pin into a board, in order to round them to the shape of the plate: the papers must be then separated and exposed to the air a few hours with that already weighed, and so many of them taken as are equal to the weight already specified. This done, threadle them together through those holes made by the pins, putting between every paper, on each thread a small bead, in order to prevent the papers from touching each other, and also that the air may be more readily admitted. The top of the hygrometer is covered with a card cut to the same size; and which, by reason of its stiffness, supports all the papers, and keeps them in proper shape. Before the papers are threaded, the beads, silk, card, and a thin piece of brass about the size of a sixpence, which must be placed at the bottom, and through which the centre string passes, must be weighed with the greatest exactness, in order to bring them to a certain weight, suppose 50 grains; now the paper in its driest state being of equal weight, they will weigh together 100 grains, consequently what they weigh more at any time is moisture.

To obviate the trouble and difficulty of making experiments with weights and scales, Mr Coventry contrived a machine or scale by which to determine at one view the humidity or dryness of the atmosphere. This, with its case, is represented by fig. 12. The front and back of the case are glass; the sides fine gauze, which excludes the dust and admits the air; the case is about ten inches high, 8 inches broad, and 4 inches deep. A, a brass bracket in front, behind which, at about $3\frac{1}{2}$ inches distance is another; these support the axis of the index E, also of the beam D, and another which supports the stem B, to which the ivory scale of divisions C is fixed. G, a brass scale suspended in the usual manner to the end of a beam D, and weighing exactly 100 grains. This scale is an exact counterpoise to the papers I and the different apparatus. The particular manner of suspension in this balance is, from the construction, as follows: The axis of the beam *g*, which is made of brass, instead of hanging on pivots, as in common scales, turns with two steel edges *k k*, fixed in the extremities of the brass axis: these edges are shaped like the edge of a knife, and act on two steel concave edges *l l*, in order to render the friction as small as possible. D, is a fine scale beam fixed at right angles with the axis *g*. E, the steel index fixed to the under side of the same axis. F, a brass sliding weight: *h* is the axis that holds the stem B to which the scale of divisions C is fixed. AA, the brass brackets which support the whole by four screws, two of which are seen at *i i*, that screw the brackets to the top of the case. The axis of the scale of divisions is hung on pivots, one of which is seen at *m*, that, should the case not stand level, the stem B may always be in a perpendicular situation.

Hygrometer.

The hygrometer, before use, should be adjusted as follows: To the end of the beam when the hygrometer is suspended, hang a weight of 100 grains, which is equal to the weight of the scale; then move the sliding weight F up or down the index E, till one grain will cause the index to traverse neither more nor less than the whole scale of divisions; then add half a grain to the scale, in order to bring the index to 0; and the instrument, after taking off the 100 grain weight and hanging on the papers, is fit for use; then put grain weights in the scale till the index is brought within compass of the scale of divisions. Example: H is 3 grains on the brass scale, and the index points at 10; consequently there is 3 grains and 10 hundredths of a grain of moisture in the papers. If four grain weights are kept, viz. 1, 2, 4, and 5, they will make any number from 1 to 9, which are as many as will be wanted. Sometimes the index will continue traversing within the scale of divisions for many days without shifting the weights; but if otherwise, they must be changed as occasion may require.

"One great advantage of this hygrometer above all others that have attracted my notice is (says Mr Coventry), that it acts from a certain *datum*, namely, the dry extreme; from which all the variations towards moist are calculated with certainty; and if constructed with that precision represented by the drawing, it will afford pleasure to the curious in observing the almost perpetual alteration of the atmosphere, even in the most settled weather. In winter it will be constantly traversing from about eight in the morning till four or five in the afternoon, towards *dry*; and in summer, from about four in the morning till six or seven in the evening, when the weather is hot and gloomy, the hygrometer discovers a very great change towards moisture; and when clear and frosty, that it contains a much greater quantity of moisture than is generally imagined."

An improvement has been proposed of this kind of hygrometer, of which the following circumstance, it is said, suggested the first hint. While Mr Lowitz was at Dmitriewsk in Astracan, he found, on the banks of the Wolga, a thin bluish kind of slate which attracted moisture remarkably soon, but again suffered it as soon to escape. A plate of this slate weighed, when brought to a red heat, 175 grains, and, when saturated with water, 247: it had therefore imbibed, between complete dryness and the point of complete moisture, 72 grains of water. Lowitz suspended a round thin plate of this slate at the end of a very delicate balance, fastened within a wooden frame, and suspended at the other arm a chain of silver wire, the end of which was made fast to a sliding nut that moved up and down in a small groove on the edge of one side of the frame. He determined, by trial, the position of the nut when the balance was in equilibrio and when it had ten degrees of over-weight, and divided the space between these two points into ten equal parts, adding such a number more of these parts as might be necessary. When the stone was suspended from the one arm

of

HYGROMETER.

PLATE CCLXVI.

Fig. 3.

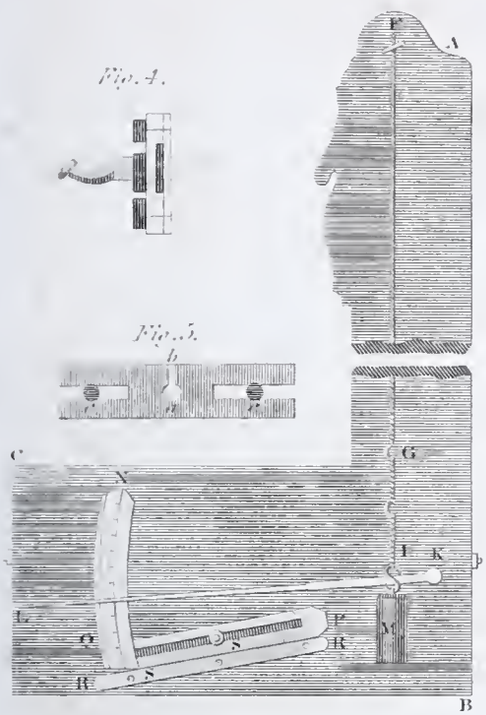


Fig. 4.

Fig. 5.

Fig. 1.

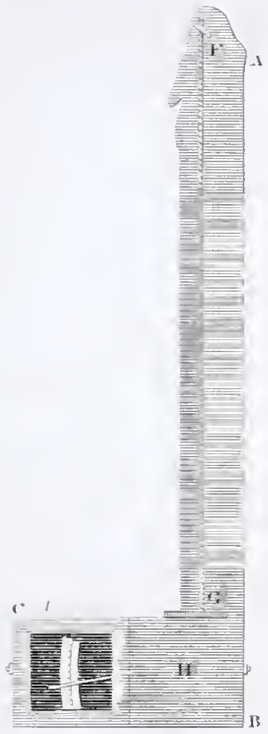


Fig. 11.

Fig. 13.

Fig. 11.

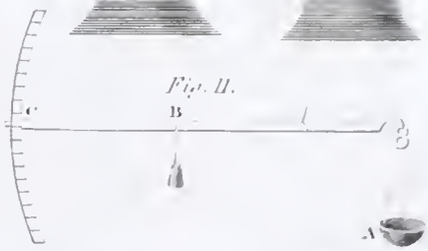


Fig. 12.

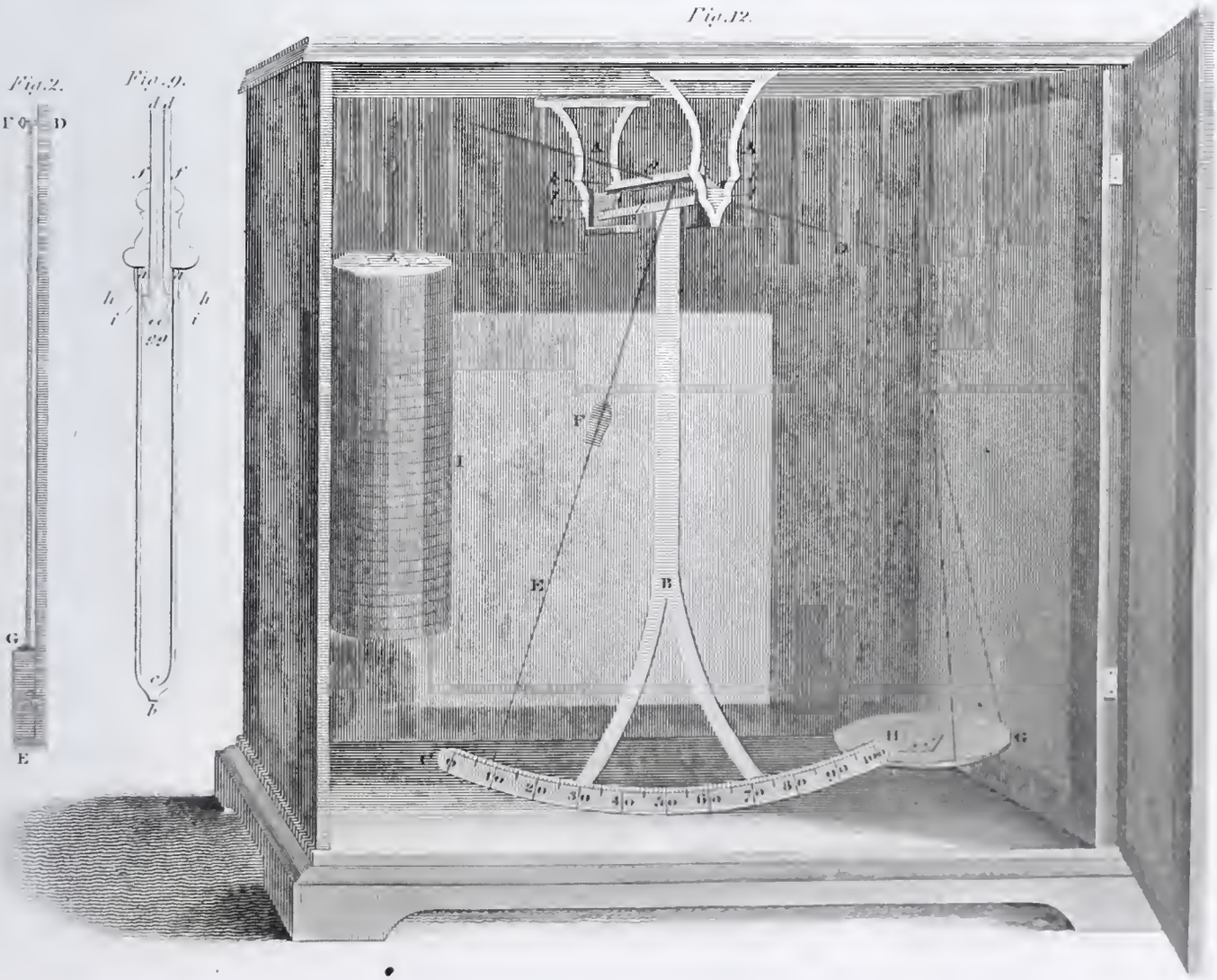


Fig. 2.

Fig. 9.

Fig. 6.

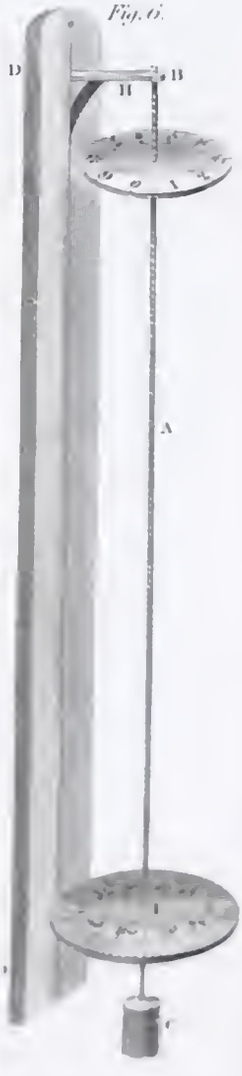


Fig. 10.

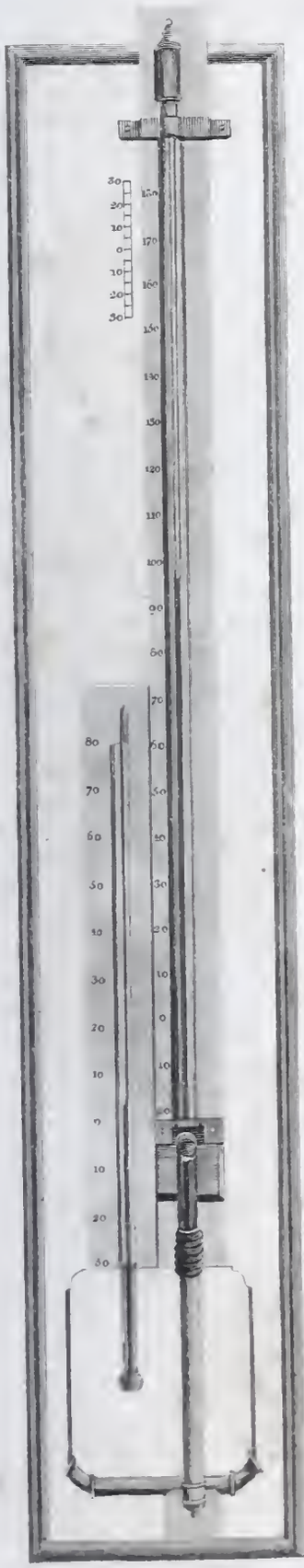


Fig. 7.

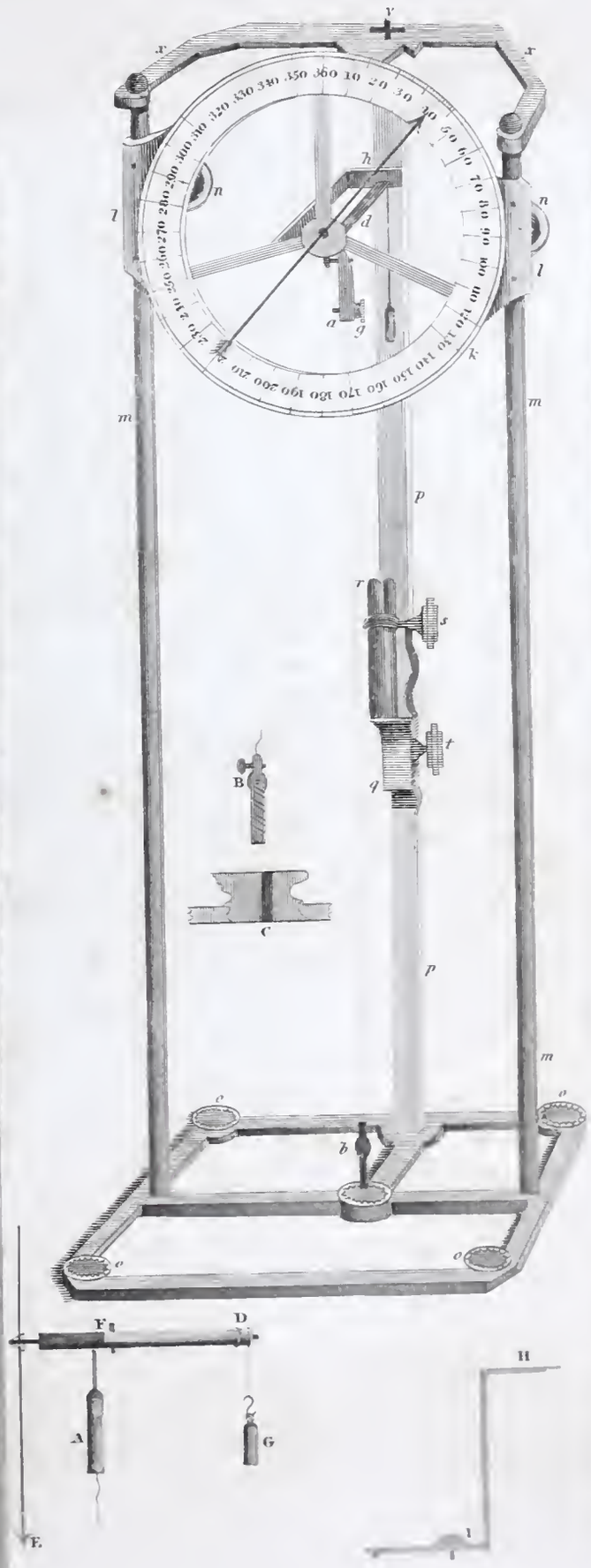
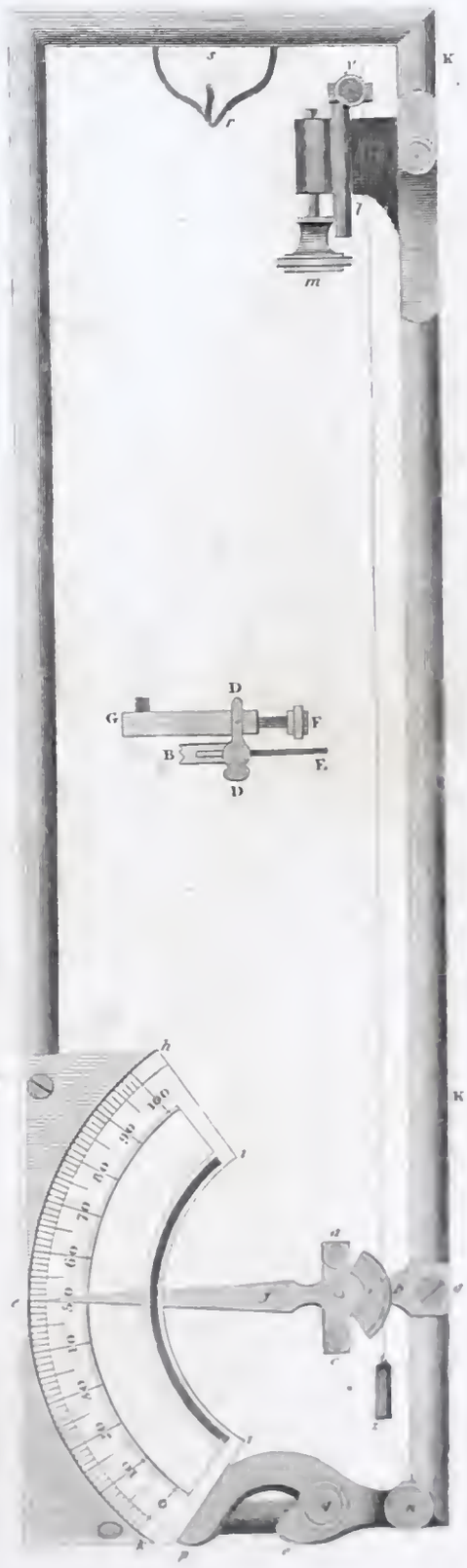


Fig. 8.



Hygrometer ‖ Hylas.

of the balance, and at the other a weight equal to 175 grains, or the weight of the stone when perfectly dry, the nut in the groove shewed the excess of weight in grains when it and the chain were so adjusted that the balance stood in equilibrio. A particular apparatus on the same principles as a vernier, applied to the nut, shewed the excess of weight to ten parts of a grain. Lowitz remarked that this hygrometer in continued wet weather gave a moisture of more than 15 grains, and in a continued heat of 113 degrees of Fahrenheit only $1\frac{1}{2}$ degree of moisture.

The hygrometer thus invented by Lowitz was, however, attended with this fault, that it never threw off the moisture in the same degree as the atmosphere became drier. It was also sometimes very deceitful, and announced moisture when it ought to have indicated that dryness had again begun to take place in the atmosphere. To avoid these inconveniences, M. Hochheimer proposes the following method:

1. Take a square bar of steel about two lines in thickness, and from ten to twelve inches in length, and form it into a kind of balance, one arm of which ends in a screw. On this screw let there be screwed a leaden bullet of a proper weight, instead of the common weights that are suspended. 2. Take a glass plate about ten inches long, and seven inches in breadth; destroy its polish on both sides, free it from all moisture by rubbing it over with warm ashes, suspend it at the other end of the balance, and bring the balance into equilibrium by screwing up or down the leaden bullet. 3. Mark now the place to which the leaden bullet is brought by the screw, as accurately as possible, for the point of the greatest dryness. 4. Then take away the glass plate from the balance, dip it completely in water, give it a shake that the drops may run off from it, and wipe them carefully from the edge. 5. Apply the glass plate thus moistened again to the balance, and bring the latter into equilibrium by screwing the leaden bullet. Mark then the place at which the bullet stands as the highest degree of moisture. 6. This apparatus is to be suspended in a small box of well dried wood, sufficiently large to suffer the glass plate to move up and down. An opening must be made in the lid, exactly of such a size as to allow the tongue of the balance to move freely. Parallel to the tongue apply a graduated circle, divided into a number of degrees at pleasure, from the highest point of dryness to the highest degree of moisture. The box must be pierced with small holes on all the four sides, to give a free passage to the air; and to prevent moisture from penetrating into the wood by rain, when it may be requisite to expose it at a window, it must either be lackered or painted. To save it at all times from rain, it may be furnished with a sort of roof.

For a description of Mr Leslie's Hygrometer, fig. 13. and in a more portable form, fig. 14. see METEOROLOGY *Index*.

HYGROSCOPE. The same with HYGROMETER.

HYLA, in *Ancient Geography*, a river of Mysia Minor, famous for Hylas the favourite boy of Hercules, who was carried down the stream and drowned. It is said to run by Prusa; whence it seems to be the same with the *Rhyndacus*, which runs north-west into the Propontis.

HYLAS, in fabulous history, son of Theodamus, was ravished by the nymphs of a fountain as he was taking out some water for Hercules, by whom he was beloved. Hylas ‖ Hymen.

HYLOZOISTS, formed of ὑλη, *matter*, and ζωη, *life*, the name of a sect of atheists among the ancient Greek philosophers, who held matter to be animated; maintaining that matter had some natural perception, without animal sensation, or reflection in itself considered; but that this imperfect life occasioned that organization whence sensation and reflection afterwards arose. Of these, some held only one life, which they called a PLASTIC nature, presiding regularly and invariably over the whole corporeal universe, which they represented as a kind of large plant or vegetable; these were called the cosmoplastic and stoical atheists, because the Stoics held such a nature, though many of them supposed it to be the instrument of the Deity. Others thought that every particle of matter was endued with life, and made the mundane system to depend upon a certain mixture of chance and plastic or orderly nature united together. These were called the *Stratonici*, from Strato Lampsacenus, a disciple of Theophrastus, called also Physicus (Cicero de Nat. Deor. lib. 1. cap. 13.), who was first a celebrated Peripatetic, and afterwards formed this new system of atheism for himself. Besides these two forms of atheism, some of the ancient philosophers were Hylopathians, or ANAXIMANDRIANS, deriving all things from dead and stupid matter, in the way of qualities and forms, generable and corruptible; and others again adopted the ATOMICAL or Democritical system, who ascribe the production of the universe to atoms and figures. See on this subject *Cudworth's Intellectual System*, book i. chap. 3.

HYMEN, or HYMENÆUS, a fabulous divinity, the son of Bacchus and Venus Urania, was supposed by the ancients to preside over marriages; and accordingly was invoked in epithalamiums, and other matrimonial ceremonies, under the formula *Hymen*, or *Hymenæe!*

The poets generally crown this deity with a chaplet of roses; and represent him, as it were, dissolved and enervated with pleasures, dressed in a yellow robe and shoes of the same colour, with a torch in his hand.—Catullus, in one of his epigrams, addresses him thus:

Cinge tempora floribus
Suavcolentis amaraci.

It was for this reason, that the new married couple bore garlands of flowers on the wedding-day: which custom also obtained among the Hebrews, and even among Christians, during the first ages of the church, as appears from Tertullian, *De corona militari*, where he says, *Coronant et nuptæ sponsos.*—S. Chrysostom likewise mentions these crowns of flowers; and to this day the Greeks call marriage στεφανωμα, in respect of this crown or garland.

HYMEN, Υμην, in *Anatomy*, a thin membrane or skin, sometimes circular, of different breadths, more or less smooth, and sometimes semilunar, formed by the union of the internal membrane of the great canal with that on the inside of the alæ, resembling a piece of fine parchment. This membrane is supposed to be stretched in the neck of the wombs of virgins, below the nymphæ, leaving in some subjects a very small opening,

Hymen. in others a larger, and in all rendering the external orifice narrower than the rest of the cavity, and to be broke when they are deflowered; an effusion of blood following the breach.

The membranous circle may likewise suffer some disorder by too great a flux of the menses, by imprudence, levity, and other particular accidents.

The hymen is generally looked upon as the test of virginity; and when broke, or withdrawn, shows that the person is not in a state of innocence. This notion is very ancient. Among the Hebrews, it was the custom for the parents to save the blood shed on this occasion as a token of the virginity of their daughter, and to send the sheets next day to the husband's relations. And the like is said to be still practised in Portugal, and some other countries.

And yet authors are not agreed as to the existence of such a membrane. Nothing, Dr Drake observes, has employed the curiosity of anatomists, in dissecting the organs of generation in women, more than this part: they have differed not only as to its figure, substance, place, and perforation, but even its reality; some positively affirming, and others flatly denying it.

De Graaf himself, the most accurate inquirer into the structure of these organs, confesses he always sought it in vain, though in the most unsuspected subjects and ages: all he could find was, a different degree of straitness or wideness, and different corrugations, which were greater or less according to the respective ages; the aperture being still the less, and the rugosities the greater, as the subject was younger and more untouched.

Dr Drake, on the other hand, declares, that in all the subjects he had opportunity to examine, he does not remember to have missed the hymen so much as once, where he had reason to depend on finding it. The fairest view he ever had of it was in a maid who died at thirty years of age; in this he found it a membrane of some strength, furnished with fleshy fibres, in figure round, and perforated in the middle with a small hole, capable of admitting the end of a woman's little finger, and situated a little above the orifice of the urinary passage, at the entrance of the vagina of the womb.

In infants it is a fine thin membrane, not very conspicuous, because of the natural straitness of the passage itself, which does not admit of any great expansion in so little room; which might lead De Graaf into a notion of its being no more than a corrugation.

This membrane, like most others, does probably grow more distinct, as well as firm, by age. That it not only exists, but is sometimes very strong and impervious, may be collected from the history of a case reported by Mr Cowper. In a married woman, twenty years of age, whose hymen was found altogether impervious, so as to detain the menses, and to be driven out by the pressure thereof beyond the labia of the pudendum, not unlike a prolapsus of the uterus; on dividing it, at least a gallon of grumous blood came forth. It seems the husband, being denied a passage that way, had found another through the meatus urinarius; which was found very open, and its sides extended like the anus of a cock.

Upon a rupture of the hymen, after the consummation of marriage, and especially delivery, its parts, shrinking up, are supposed to form those little fleshy knots, called *carunculæ myrtiformes*. Hymen ‖ Hyo-thyroides.

HYMENÆA, the Bastard Locust Tree; a genus of plants, belonging to the decandria class; and in the natural method ranking under the 33d order, *Lomentaceæ*. See Botany *Index*.

HYMENÆAL, something belonging to marriage; so called from Hymen.

HYMENOPTERA (derived from ὑμὴν, *membrane*, and πτερον, *wing*), in the Linnæan system of natural history, is an order of insects, having four membranaceous wings, and the tails of the females are furnished with stings, which in some are used for instilling poison, and in others for merely piercing the bark and leaves of trees, and the bodies of other animals, in which they deposit their eggs. See Entomology *Index*.

HYMETTUS, in *Ancient Geography*, a mountain of Attica near Athens, famous for its marble quarries, and for its excellent honey. *Hymettius* the epithet. Pliny says that the orator Crassus was the first who had marble columns from this place.

HYMN, a song or ode in honour of God; or a poem, proper to be sung, composed in honour of some deity.—The word is Greek, ὕμνος, *hymn*, formed of the verb ὑδω, *celebro*, "I celebrate."—Isidore, on this word, remarks, that *hymn* is properly a song of joy, full of the praises of God; by which, according to him, it is distinguished from *threnu*, which is a mourning song, full of lamentation.

St Hilary, bishop of Poictiers, is said to have been the first that composed hymns to be sung in churches, and was followed by St Ambrose. Most of those in the Roman Breviary were composed by Prudentius. They have been translated into French verse by Messieurs de Port Royal.—In the Greek Liturgy there are four kinds of hymns; but the word is not taken in the sense of a praise offered in verse, but simply of a laud or praise. The angelic hymn, or *Gloria in excelsis*, makes the first kind; the *trisagion* the second; the *Cherubic hymn*, the third; and the hymn of *victory* and *triumph*, called ἐπινικιος, the last.

The hymns or odes of the ancients generally consisted of three sorts of stanzas; one of which, called *strophè*, was sung by the band as they walked from east to west; another, called *antistrophè*, was performed as they returned from west to east; the third part, or *epode*, was sung before the altar. The Jewish hymns were accompanied with trumpets, drums, and cymbals, to assist the voices of the Levites and people.

HYOBANCHE, a genus of plants belonging to the didynamia class. See Botany *Index*.

HYOIDES, in *Anatomy*, a bone placed at the root of the tongue. See Anatomy, N° 28.

HYOSCYAMUS, Henbane; a genus of plants belonging to the pentandria class, and in the natural method ranking under the 28th order, *Luridæ*. See Botany and Materia Medica *Index*.

HYOSERIS, a genus of plants belonging to the syngenesia class, and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*.

HYO-THYROIDES, in *Anatomy*, one of the muscles belonging to the os hyoides. See Anatomy, *Table of the Muscles*.

HYPALLAGE,

Hypallage ‖ Hypatia.

HYPALLAGE, among grammarians, a species of hyperbaton, consisting in a mutual permutation of one case for another. Thus Virgil says, *Dare classibus austros*, for *dare classes austris*; and again, *Nec dum illis labra admovi*, for *nec dum illa labris admovi*.

HYPANTE, or HYPERPANTE, a name given by the Greeks to the feast of the presentation of Jesus in the temple.—This word, which signifies *lowly* or *humble meeting*, was given to this feast from the meeting of old Simeon and Anna the prophetess in the temple when Jesus was brought thither.

HYPATIA, a learned and beautiful lady of antiquity, the daughter of Theon a celebrated philosopher and mathematician, and president of the famous Alexandrian school, was born at Alexandria about the end of the fourth century. Her father, encouraged by her extraordinary genius, had her not only educated in all the ordinary qualifications of her sex, but instructed in the most abstruse sciences. She made such great progress in philosophy, geometry, astronomy, and the mathematics, that she passed for the most learned person of her time. At length she was thought worthy to succeed her father in that distinguished and important employment, the government of the school of Alexandria; and to teach out of that chair where Ammonius, Hierocles, and many other great men, had taught before; and this at a time too when men of great learning abounded both at Alexandria and in many other parts of the Roman empire. Her fame was so extensive, and her worth so universally acknowledged, that we cannot wonder if she had a crowded auditory. "She explained to her hearers (says Socrates) the several sciences that go under the general name of philosophy; for which reason there was a confluence to her from all parts of those who made philosophy their delight and study." One cannot represent to himself, without pleasure, the flower of all the youth of Europe, Asia, and Africa, sitting at the feet of a very beautiful lady (for such we are assured Hypatia was), all greedily swallowing instruction from her mouth, and many of them, doubtless, love from her eyes; though we are not sure that she ever listened to any solicitations, since Suidas, who talks of her marriage with Isiodorus, yet relates at the same time that she died a maid.

Her scholars were as eminent as they were numerous; one of whom was the celebrated Synesius, who was afterwards bishop of Ptolemais. This ancient Christian Platonist everywhere bears the strongest, as well as the most grateful testimony of the virtue of his tutoress; and never mentions her without the most profound respect, and sometimes in terms of affection coming little short of adoration. But it was not Synesius only, and the disciples of the Alexandrian school, who admired Hypatia for her virtue and learning: never was woman more caressed by the public, and yet never woman had a more unspotted character. She was held as an oracle for her wisdom, which made her consulted by the magistrates in all important cases; and this frequently drew her amongst the greatest concourse of men, without the least censure of her manners. In a word, when Nicephorus intended to pass the highest compliment on the princess Eudocia, he thought he could not do it better than by calling her another *Hypatia*.

Hypatia ‖ Hyperba-ton.

While Hypatia thus reigned the brightest ornament of Alexandria, Orestes was governor of the same place for the emperor Theodosius, and Cyril was bishop or patriarch. Orestes having had a liberal education, could not but admire Hypatia; and as a wise governor frequently consulted her. This, together with an aversion which Cyril had against Orestes, proved fatal to the lady. About 500 monks assembling, attacked the governor one day, and would have killed him, had he not been rescued by the townsmen; and the respect which Orestes had for Hypatia causing her to be traduced among the Christian multitude, they dragged her from her chair, tore her in pieces, and burned her limbs. Cyril is not clear from a suspicion of fomenting this tragedy. Cave indeed endeavours to remove the imputation of such an horrid action from the patriarch; and lays it upon the Alexandrian mob in general, whom he calls *levissimum hominum genus*; "a very trifling inconstant people." But though Cyril should be allowed neither to have been the perpetrator, nor even the contriver of it, yet it is much to be suspected that he did not discountenance it in the manner he ought to have done: which suspicion must needs be greatly confirmed by reflecting, that he was so far from blaming the outrage committed by the monks upon Orestes, that he afterwards received the dead body of Ammonius, one of the most forward in that outrage, who had grievously wounded the governor, and who was justly punished with death. Upon this riotous ruffian Cyril made a panegyric in the church where he was laid, in which he extolled his courage and constancy, as one that had contended for the truth; and changing his name to *Thaumasius*, or "the Admirable," ordered him to be considered as a martyr. "However, (continues Socrates), the wisest part of Christians did not approve the zeal which Cyril showed on this man's behalf, being convinced that Ammonius had justly suffered for his desperate attempt."

HYPECOUM, WILD CUMIN, a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 24th order, *Corydales*. See BOTANY *Index*.

HYPER, a Greek preposition frequently used in composition, where it denotes excess; its literal signification being *above* or *beyond*.

HYPERBATON, in *Grammar*, a figurative construction inverting the natural and proper order of words and sentences. The several species of the hyperbaton are, the anastrophe, the hysteron-proteron, the hypallage, synchysis, tmesis, parenthesis, and the hyperbaton strictly so called. See ANASTROPHE, &c.

HYPERBATON, strictly so called, is a long retention of the verb which completes the sentence, as in the following example from Virgil:

Interea Reges: ingenti mole Latinus
Quadrijugo vehitur curru, cui tempora circum
Aurati bis sex radii fulgentia cingunt,
Solis avi specimen: bigis it Turnus in albis,
Bina manu lato crispans hastilia ferro:
Hinc Pater Æneas, Romanæ stirpis origo,
Sidereo flagrans clypeo et cœlestibus armis;
Et juxta Ascanius, magnæ spes altera Romæ:
Procedunt castris.

HYPERBOLA,

Hyperbola, Hyperbole.

HYPERBOLA, a curve formed by cutting a cone in a direction parallel to its axis. See CONIC SECTIONS.

Hyperbola Deficient, is a curve having only one asymptote, though two hyperbolic legs running out infinitely by the side of the asymptote, but contrary ways.

HYPERBOLE, in *Rhetoric*, a figure, whereby the truth and reality of things are excessively either enlarged or diminished. See ORATORY, N° 58.

An object uncommon with respect to size, either very great of its kind or very little, strikes us with surprise; and this emotion forces upon the mind a momentary conviction that the object is greater or less than it is in reality: the same effect precisely attends figurative grandeur or littleness; and hence the hyperbole, which expresses this momentary conviction. A writer, taking advantage of this natural delusion, enriches his description greatly by the hyperbole: and the reader, even in his coolest moments, relishes this figure, being sensible that it is the operation of nature upon a warm fancy.

It cannot have escaped observation that a writer is generally more successful in magnifying by a hyperbole than in diminishing. The reason is, that a minute object contracts the mind, and fetters its powers of imagination; but that the mind, dilated and inflamed with a grand object, moulds objects for its gratification with great facility. Longinus, with respect to a diminishing hyperbole, cites the following ludicrous thought from a comic poet: "He was owner of a bit of ground not larger than a Lacedæmonian letter." But, for the reason now given, the hyperbole has by far the greater force in magnifying objects; of which take the following example:

> For all the land which thou seest, to thee will I give it, and to thy seed for ever. And I will make thy seed as the dust of the earth: so that if a man can number the dust of the earth, then shall thy seed also be numbered. *Gen.* xiii. 15, 16.

Illa vel intactæ segetis per summa volaret
Gramina, nec teneras cursu læsisset aristas.
Æneid, vii. 808.

———*Atque imo barathri ter gurgite vastos*
Sorbet in abruptum fluctus, rursusque sub auras
Erigit alternos, et sidera verberat unda.
Æneid, iii. 421.

———*Horrificis juxta tonat Ætna ruinis,*
Interdumque atram prorumpit ad æthera nubem,
Turbine fumantem picco et candente favilla:
Attollitque globos flammarum, et sidera lambit.
Æneid, iii. 571.

Speaking of Polyphemus,

———*Ipse arduus, altaque pulsat*
Sidera. *Æneid*, iii. 619.

———When he speaks,
The air, a charter'd libertine, is still.
Henry V. act i. sc. 1.

Now shield with shield, with helmet helmet clos'd,
To armour armour, lance to lance oppos'd,
Host against host with shadowy squadrons drew, Hyperbole.
The sounding darts in iron tempests flew,
Victors and vanquish'd join promiscuous cries,
And shrilling shouts and dying groans arise;
With streaming blood the slipp'ry fields are dy'd,
And slaughter'd heroes swell the dreadful tide.
Iliad, iv. 508.

Quintilian is sensible that this figure is natural: "For (says he), not contented with truth, we naturally incline to augment or diminish beyond it; and for that reason the hyperbole is familiar even among the vulgar and illiterate;" and he adds, very justly, "That the hyperbole is then proper, when the object of itself exceeds the common measure." From these premises, one would not expect the following inference, the only reason he can find for justifying this figure of speech, *Conceditur enim amplius dicere, quid dici quantum est, non potest: meliusque ultra quam citra stat oratio.*" (We are indulged to say more than enough, because we cannot say enough; and it is better to be above than under). In the name of wonder, why this slight and childish reasoning, when immediately before he had observed, that the hyperbole is founded on human nature? We could not resist this personal stroke of criticism; intended not against our author, for no human creature is exempt from error; but against the blind veneration that is paid to the ancient classic writers, without distinguishing their blemishes from their beauties.

Having examined the nature of this figure, and the principle on which it is erected, let us proceed to the rules by which it ought to be governed. And, in the first place, it is a capital fault to introduce an hyperbole in the description of an ordinary object or event; for in such a case, it is altogether unnatural, being destitute of surprise, its only foundation. Take the following instance, where the subject is extremely familiar, viz. swimming to gain the shore after a shipwreck.

I saw him beat the surges under him,
And ride upon their backs: he trode the water;
Whose enmity he flung aside, and breasted
The surge most swoln that met him: his bold head
'Bove the contentious waves he kept, and oar'd
Himself with his good arms, in lusty strokes
To th' *shore*, that o'er his wave-born basis bow'd,
As stooping to relieve him. *Tempest*, act ii. sc. 1.

In the next place, it may be gathered from what is said, that an hyperbole can never suit the tone of any dispiriting passion: sorrow in particular will never prompt such a figure; and for that reason the following hyperboles must be condemned as unnatural:

K. Rich. Aumerle, thou weep'st, my tender-hearted cousin!
We'll make foul weather with despised tears:
Our sighs, and they, shall lodge the summer-corn,
And make a dearth in this revolving land.
Richard II. act iii. sc. 6.

Draw them to Tyber's bank, and weep your tears
Into the channel, till the lowest stream
Do kiss the most exalted shore of all.
Julius Cæsar, act i. sc. 1.

Thirdly,

Hyperbole. Thirdly, A writer, if he wish to succeed, ought always to have the reader in his eye: he ought, in particular, never to venture a bold thought or expression, till the reader be warmed and prepared. For this reason, an hyperbole in the beginning of a work can never be in its place. Example:

Jam pauca aratro jugera regiæ
Moles relinquent. *Horat. Carm.* lib. ii. ode 15.

In the fourth place, The nicest point of all is, to ascertain the natural limits of an hyperbole, beyond which being overstrained, it has a bad effect. Longinus (chap. iii.), with great propriety of thought, enters a caveat against an hyperbole of this kind: he compares it to a bow-string, which relaxes by overstraining, and produceth an effect directly opposite to what is intended. To ascertain any precise boundary, would be difficult, if not impracticable. We shall therefore only give a specimen of what may be reckoned overstrained hyperboles. No fault is more common among writers of inferior rank; and instances are found even among those of the finest taste; witness the following hyperbole, too bold even for an Hotspur.

Hotspur talking of Mortimer:

In single opposition hand to hand,
He did confound the best part of an hour
In changing hardiment with great Glendower.
Three times they breath'd, and three times did they drink,
Upon agreement, of swift Severn's flood;
Who then affrighted with their bloody looks,
Ran fearfully among the trembling reeds,
And hid his crisp'd head in the hollow bank,
Blood-stained with these valiant combatants.
First Part Henry IV. act i. sc. 4.

Speaking of Henry V.

England ne'er had a King until this time.
Virtue he had, deserving to command:
His brandish'd sword did blind men with its beams:
His arms spread wider than a dragon's wings:
His sparkling eyes, replete with awful fire,
More dazzled, and drove back his enemies,
Than mid-day sun fierce bent against their faces.
What should I say? his deeds exceed all speech.
He never lifted up his hand, but conquer'd.
First Part Henry VI. act i. sc. 1.

Lastly, an hyperbole, after it is introduced with all advantages, ought to be comprehended within the fewest words possible: as it cannot be relished but in the hurry and swelling of the mind, a leisurely view dissolves the charm, and discovers the description to be extravagant at least, and perhaps also ridiculous. This fault is palpable in a sonnet which passeth for one of the most complete in the French language: Phillis, in a long and florid description, is made as far to outshine the sun as he outshines the stars:

Le silence regnoit sur la terre et sur l'onde,
L'air devenoit serrain et l'Olimp vermeil,
Et l'amoureux Zephir affranchi du someil,
Ressuscitoit les fleurs d'une haleine feconde.
L'Aurore deployoit l'or de sa tresse blonde,
Et semoit de rubis le chemin du soleil;
Enfin ce Dieu venoit au plus grand appareil
Qu'il soit jamais venu pour eclairer le monde:

Hyperbole ‖ Hypercritic.

Quand la jeune Phillis au visage riant,
Sortant de son palais plus clair que l'orient,
Fit voir une lumiere et plus vive et plus belle.

Sacre Flambeau du jour, n'en soiez point jaloux,
Vous parutes alors aussi peu devant elle,
Que les feux de la nuit avoient fait devant vous.
Malleville.

There is in Chaucer a thought expressed in a single line, which sets a young beauty in a more advantageous light than the whole of this much laboured poem:

Up rose the sun, and up rose Emelie.

HYPERBOREAN, in the *Ancient Geography*. The ancients denominated those people and places *Hyperborean* which were to the northward of the Scythians. They had but very little acquaintance with these Hyperborean regions; and all they tell us of them is very precarious, much of it false. Diodorus Siculus says, the Hyperboreans were thus called by reason they dwelt beyond the wind Boreas; ὑπὲρ, signifying, "above or beyond," and Βορέας, *Boreas*, the "north wind." This etymology is very natural and plausible; nothwithstanding all that Rudbeck has said against it, who would have the word to be Gothic, and to signify *nobility*. Herodotus doubts whether or not there were any such nations as the Hyperborean. Strabo, who professes that he believes there are, does not take *hyperborean* to signify *beyond Boreas* or the north, as Herodotus understood it: the preposition ὑπὲρ, in this case, he supposes only to help to form a superlative; so that *hyperborean*, on his principles, means no more than *most northern*; by which it appears the ancients scarce knew themselves what the name meant.—Most of our modern geopraphers, as Hoffman, Cellarius, &c. have placed the Hyperboreans in the northern parts of the European continent, among the Siberians and Samoieds: according to them, the Hyperboreans of the ancients were those in general who lived farthest to the north. The Hyperboreans of our days are those Russians who inhabit between the Volga and the White sea. According to Cluvier, the name Celtes was synonymous with that of Hyperborcans.

HYPERCATALECTIC, in the Greek and Latin poetry, is applied to a verse that has one or two syllables too much, or beyond the regular and just measure; as,

Musæ sorores sunt Minervæ:

Also,

Musæ sorores Palladis lugent.

HYPERCRITIC, an over-rigid censor or critic: one who will let nothing pass, but animadverts severely on the slightest fault. See CRITICISM. The word is compounded of ὑπὲρ, *super*, "over, above, beyond;" and κριτικος, of κρίνω, *judeo*, of κρίνω, *judico*, "I judge."

HYPERDULIA,

Hyperdulia || Hypobole

HYPERDULIA, in the Romish theology, is the worship rendered to the holy virgin. The word is Greek, ὑπερδυλεια, composed of ὑπερ, *above*, and δυλεια, *worship, service*. The worship offered to saints is called *dulia;* and that to the mother of God, *hyperdulia*, as being superior to the former.

HYPERIA, in *Ancient Geography*, the seat of the Phæacians near the Cyclops, (Homer): some commentators take it to be Camarina in Sicily; but, according to others, it is supposed to be an adjoining island, which they take to be Malta, lying in sight of Sicily. And this seems to be confirmed by Apollonius Rhodius. Whence the Phæacians afterwards removed to Corcyra, called *Scheria*, *Phæacia*, and *Macris;* having been expelled by the Phœnicians, who settled in Malta for commerce, and for commodious harbours, before the war of Troy, (Diodorus Siculus).

HYPERICUM, St John's Wort, a genus of plants belonging to the polyadelphia class, and in the natural method ranking under the 20th order, *Rotaceæ*. See Botany *Index*.

HYPERIDES, an orator of Greece, was the disciple of Plato and Isocrates, and governed the republic of Athens. He defended with great zeal and courage the liberties of Greece; but was put to death by Antipater's order, 322 B. C. He composed many orations, of which only one now remains. He was one of the ten celebrated Greek orators.

HYPERMNESTRA, in fabulous history, one of the fifty daughters of Danaus king of Argos. She alone refused to obey the cruel order Danaus had given to all his daughters, to murder their husbands the first night of their marriage; and therefore saved the life of Lynceus, after she had made him promise not to violate her virginity. Danaus, enraged at her disobedience, confined her closely in prison, whence Lynceus delivered her some time after.

HYPERSARCOSIS, in *Medicine* and *Surgery*, an excess of flesh, or rather a fleshy excrescence, such as those generally rising upon the lips of wounds, &c.

HYPHEN, an accent or character in grammar, implying that two words are to be joined, or connected into one compound word, and marked thus -; as *pre-established*, *five-leaved*, &c. Hyphens also serve to connect the syllables of such words as are divided by the end of the line.

HYPNOTIC, in the *Materia Medica*, such medicines as any way produce sleep, whether called *narcotics*, *hypnotics*, *opiates*, or *soporifics*.

HYPNOTICUS serpens, the *Sleep-snake*, in *Zoology*, the name of an East Indian species of serpent, called by the Ceylonese *nintipolong*, a word importing the same sense. It is of a deep blackish brown, variegated with spots of white, and is a very fatal kind in its poison: its bite it is said brings on a sleep which ends in death; hence this trivial name.

HYPNUM, Feather-moss, a genus of plants of the natural order of musci, belonging to the cryptogamia class. See Botany *Index*.

HYPO, a Greek particle, retained in the composition of divers words borrowed from that language; literally denoting *under*, *beneath*.—In which sense it stands opposed to ὑπερ, *supra*, "above."

HYPOBOLE, or Subjection, (from ὑπο, and βαλλω, *I cast*,) in *Rhetoric*, a figure, so called, when several things are mentioned, that seem to make for the contrary side, and each of them refuted in order. This figure, when complete, consists of three parts; a proposition, an enumeration of particulars with their answer, and a conclusion. Thus Cicero, upon his return from banishment, vindicates his conduct in withdrawing so quietly, and not opposing the faction that ejected him. See Oratory, N° 81.

Hypobole || Hypogastrium.

HYPOCATHARSIS (compounded of ὑπο, *under*, and καθαιρω, *I purge*), in *Medicine*, a too faint or feeble purgation.

HYPOCAUSTUM, among the Greeks and Romans, a subterraneous place, where was a furnace to heat the baths. The word is Greek, formed of the preposition ὑπο, *under;* and the verb καιω, *to burn*.—Another sort of hypocaustum was a kind of kiln to heat their winter parlours. The remains of a Roman hypocaustum, or sweating-room, were discovered under ground at Lincoln in 1739. We have an account of these remains in the Philosophical Transactions, N° 461. § 29.—Among the moderns, the hypocaustum is that place where the fire is kept which warms a stove or hot-house.

HYPOCHÆRIS, Hawk's-eye, a genus of plants belonging to the syngenesia class, and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*.

HYPOCHONDRIA, in *Anatomy*, a space on each side the epigastric region, or upper part of the abdomen. See Anatomy, N° 88.

HYPOCHONDRIAC passion, a disease in men, similar to the hysteric affection in women. See Medicine *Index*.

HYPOCISTIS, in the *Materia Medica*, an inspissated juice obtained from the sessile asarum, much resembling the true Egyptian acacia. They gather the fruit while unripe, and express the juice, which they evaporate over a very gentle fire, to the consistence of an extract, and then form into cakes, and expose them to the sun to dry. It is an astringent of considerable power; is good against diarrhœas and hæmorrhagies of all kinds; and may be used in repellent gargarisms in the manner of the true acacia; but it is very rarely met with genuine in our shops, the German acacia being usually sold under its name.

HYPOCRISY, ὑποκρισις, in *Ethics*, denotes dissimulation with regard to the moral or religious character. In other words, it signifies one who feigns to be what he is not; and is generally applied to those who assume the appearances of virtue or religion, without having any thing in reality of either.

HYPOGÆUM, ὑπογαιον, formed of ὑπο, *under*, and γαια, *earth*, in the ancient architecture, is a name common to all the parts of a building that are under ground; as the cellar, butteries, and the like places. The term *hypogæum* was used by the Greeks and Romans for subterraneous tombs in which they buried their dead.

Hypogæum, ὑπογαιον, in *Astrology*, is a name given to the celestial houses which are below the horizon: and especially the *imum cœli*, or bottom of heaven.

HYPOGASTRIC, an appellation given to the internal branch of the iliac artery.

HYPOGASTRIUM, in *Anatomy*, the middle part of

Hypogastrium ‖ Hypostasis.

of the lower region of the belly. See ANATOMY, N° 88.

HYPOGLOSSI EXTERNI, or MAJORES, in *Anatomy*, the ninth pair of nerves, called also *linguales* and *gustatorii*. See ANATOMY.

HYPOGLOTTIS, or HYPOGLOSSIS, (composed of ὑπο, *under*, and γλωττα, *tongue*), in *Anatomy*, is a name given to two glands of the tongue. There are four large glands of the tongue; two of them called *hypoglottides*, situated under it, near the venæ ranulares: one on each side of the tongue. They serve to secrete a kind of serous matter of the nature of saliva, which is discharged into the mouth by little ducts near the gums.

HYPOGLOTTIS, or *Hypoglossis*, in *Medicine*, denotes an inflammation or ulceration under the tongue; called also *ranula*.

HYPOPYON, in *Medicine*, a collection of purulent matter under the corner of the eye.

HYPOSCENIUM, in antiquity, a partition under the pulpit or logeum of the Greek theatre, appointed for the music.

HYPOSTASIS, a Greek term, literally signifying *substance*, or *subsistence*; used in theology for *person*.—The word is Greek, ὑποστασις; compounded of ὑπο, *sub*, "under;" and ἱστημι, *sto*, *existo*; "I stand, I exist;" q. d. *sub sistentia*. Thus we hold, that there is but one nature or essence in God, but three *hypostases* or persons.

The term *hypostasis* is of a very ancient standing in the church. St Cyril repeats it several times, as also the phrase *union according to hypostasis*. The first time it occurs is in a letter from that father to Nestorius, where he uses it instead of προσωπον, the word we commonly render *person*, which did not seem expressive enough. "The philosophers (says St Cyril) have allowed three *hypostases*: They have extended the Divinity to three *hypostases*: They have even sometimes used the word *trinity*: And nothing was wanting but to have admitted the consubstantiality of the three *hypostases*, to show the unity of the divine nature, exclusive of all triplicity in respect of distinction of nature, and not to hold it necessary to conceive any respective inferiority of *hypostases*."

This term occasioned great dissensions in the ancient church; first among the Greeks, and afterwards also among the Latins. In the council of Nice, *hypostasis* was defined to denote the same with *essence* or *substance*; so that it was heresy to say that Jesus Christ was of a different *hypostasis* from the Father; but custom altered its meaning. In the necessity they were under of expressing themselves strongly against the Sabellians, the Greeks made choice of the word *hypostasis*, and the Latins of *persona*; which change proved the occasion of endless disagreement. The phrase τρεις ὑποστασις, used by the Greeks, scandalized the Latins, whose usual way of rendering ὑποστασις in their language was by *substantia*. The barrenness of the Latin tongue in theological phrases, allowed them but one word for the two Greek ones, ουσια and ὑποστασις; and thus disabled them from distinguishing *essence* and *hypostasis*. For which reason they chose rather to use the term *tres personæ*, and *tres hypostases*.—An end was put to logomachias, in a synod held at Alexandria about the year 362, at which St Athanasius assisted; from which time the Latins made no great scruple of saying *tres hypostases*, nor the Greeks of *three persons*. Hypostasis ‖ Hypothesis.

HYPOTHECA, in the *Civil Law*, an obligation, whereby the effects of a debtor are made over to his creditor, to secure his debt. The word comes from the Greek ὑποθηκη, *a thing subject to some obligation*; of the verb ὑποτιθημαι, *suppono*, "I am rejected;" of ὑπο, *under*, and τιθημι, *pono*, "I put."

As the hypotheca is an engagement procured on purpose for the security of the creditor, various means have been made use of to secure to him the benefit of the convention. The use of the pawn or pledge is the most ancient, which is almost the same thing with the hypotheca; all the difference consisting in this, that the pledge is put into the creditor's hands; whereas, in a simple hypotheca, the thing remained in the possession of the debtor. It was found more easy and commodious to engage an estate by a civil covenant than by an actual delivery: accordingly the expedient was first practised among the Romans; and from them the Romans borrowed both the name and the thing: only the Greeks, the better to prevent frauds, used to fix some visible mark on the thing, that the public might know it was hypothecate or mortgaged by the proprietor; but the Romans, looking on such advertisements as injurious to the debtor, forbade the use of them.

The Roman lawyers distinguished four kinds of hypothecas: the conventional, which was with the will and consent of both parties; the legal, which was appointed by law, and for that reason called *tacit*; the prætor's pledge, when by the flight or non-appearing of the debtor, the creditor was put in possession of his effects; and the judiciary, when the creditor was put in possession by virtue of a sentence of the court.

The conventional hypotheca is subdivided into general and special. The hypotheca is general, when all the debtor's effects, both present and future, are engaged to the creditor. It is special, when limited to one or more particular things.

For the tacit hypotheca, the civilians reckon no less than twenty-six different species thereof.

HYPOTHENUSE, in *Geometry*, the longest side of a right-angled triangle, or that which subtends the right angle.

HYPOTHESIS, formed of ὑπο, "under," and θεσις, *positio*, of τιθημι, *pono*, "I put"), is a proposition or principle which we suppose, or take for granted, in order to draw conclusions for the proof of a point in question.

In disputation, they frequently make false hypotheses, in order to draw their antagonists into absurdities; and even in geometry truths are often deducible from such false hypotheses.

Every conditional or hypothetical proposition may be distinguished into hypothesis and thesis: the first rehearses the conditions under which any thing is affirmed or denied; and the latter is the thing itself affirmed or denied. Thus, in the proposition, a triangle is half of a parallelogram, if the bases and altitudes of the two be equal; the latter part is the hypothesis, "if the bases," &c. and the former a thesis, "a triangle is half a parallelogram."

In strict logic, we are never to pass from the hypo-

Hypothesis ‖ Hypotrachelion.

thesis to the thesis; that is, the principle supposed must be proved to be true, before we require the consequence to be allowed.

HYPOTHESIS, in *Physics*, &c. denotes a kind of system laid down from our own imagination, whereby to account for some phenomenon or appearance of nature. Thus we have hypotheses to account for the tides, for gravity, for magnetism, for the deluge, &c.

The real and scientific causes of natural things generally lie very deep; observation and experiment, the proper means of arriving at them, are in most cases extremely slow, and the human mind is very impatient: hence we are frequently driven to feign or invent something that may seem like the cause, and which is calculated to answer the several phenomena, so that it may possibly be the true cause.

Philosophers are divided as to the use of such fictions or hypotheses, which are much less current now than they were formerly. The latest and best writers are for excluding hypotheses, and standing wholly on observation and experiment. Whatever is not deduced from phenomena, says Sir Isaac Newton, is an hypothesis; and hypotheses, whether metaphysical, or physical, or mechanical, or of occult qualities, have no place in experimental philosophy.

The Cartesians take upon them to suppose what affections in the primary particles of matter they please; just what figures, what magnitudes, what motions, and what situations, they find for their purpose. They also feign certain unseen, unknown fluids, and endue them with the most arbitrary properties; give them a subtility which enables them to pervade the pores of all bodies, and make them agitated with the most unaccountable motions. But is not this to set aside the real constitution of things, and to substitute dreams in their place? Truth is scarce attainable even by the surest observations; and will fanciful conjectures ever come at it? They who found their speculations on hypotheses, even though they argue from them regularly, according to the strictest laws of mechanics, may be said to compose an elegant and artful fable; but it is still only a fable.

HYPOTHESIS is more particularly applied in astronomy to the several systems of the heavens; or the different ways in which different astronomers have supposed the heavenly bodies to be ranged, moved, &c.

The principal hypotheses are the Ptolemaic, Copernican, and Tychonic. The Copernican is now become so current, and is so well warranted by observation, that the retainers thereto hold it injurious to call it an *hypothesis*. See ASTRONOMY.

HYPOTIPOSIS. See ORATORY, N° 91.

HYPOTRACHELION, in *Architecture*, is used for a little frieze in the Tuscan and Doric capital, between the astragal and annulets; called also the *colerin* and *gorgerin*. The word is applied by some authors in a more general sense, to the neck of any column, or that part of its capital below the astragal.

Hypotrachelion ‖ Hystrix.

HYPOXIS, a genus of plants belonging to the hexandria class, and in the natural method ranking under the 10th order, *Coronariæ*. See BOTANY *Index*.

HYPSISTARII, (formed from ὑψιστος, "highest)," a sect of heretics in the fourth century; thus called from the profession they made of worshipping the most high God.

The doctrine of the Hypsistarians was an assemblage of Paganism, Judaism, and Christianity. They adored the most high God with the Christians; but they also revered fire and lamps with the heathens; and observed the sabbath, and the distinction of clean and unclean things with the Jews.

The Hypsistarii bore a near resemblance to the Euchites, or Massalians.

HYRCANIA, in *Ancient Geography*, a country of the farther Asia, lying to the south-east of the *Mare Hyrcanum* or *Caspium;* with Media on the west, Parthia on the south, and Margiana on the east. Famous for its tygers (Virgil); for its vines, figs, and olives, (Strabo).

HYRCANIA, in *Ancient Geography*, a town of Lydia, in the *campus Hyrcanus*, near Thyatira; so called from colonists brought from Hyrcania, a country lying to the south of the Caspian sea. The people called *Hyrcani Macedones*, because a mixed people (Pliny).—Another Hyrcania, the metropolis of the country called *Hyrcania*.. Thought to be the Tape of Strabo, the Syrinx of Polybius, the Zeudracarta of Arrian, and the Asaac of Isidorus Characenus.—A third, a strong place of Judea, built by Hyrcanus.

HYSSOP. See HYSSOPUS.

Hedge Hyssop. See GRATIOLA.

HYSSOPUS, HYSSOP, a genus of plants belonging to the didynamia class. See BOTANY and MATERIA MEDICA *Index*.

HYSTERIC AFFECTION, or *Passion*, (formed of ὑστερα, "womb"); a disease in women, called also *suffocation of the womb*, and vulgarly *fits of the mother*. It is a spasmodico-convulsive affection of the nervous system, proceeding from the womb; for the symptoms and cure of which, see MEDICINE.

HYSTERON PROTERON, in *Grammar* and *Rhetoric*, a species of the hyperbaton, wherein the proper order of construction is so inverted, that the part of any sentence which should naturally come first is placed last: as in this of Terence, *Valet et vivit*, for *vivit et valet;* and in the following of Virgil, *Moriamur, et in media arma ruamus*, for *In media arma ruamus, et moriamur*.

HYSTRIX, or PORCUPINE, a genus of quadrupeds belonging to the order of glires. See MAMMALIA *Index*.

I.

I Jablonski.

I, or *i*, the ninth letter and third vowel of the alphabet, is pronounced by throwing the breath suddenly against the palate, as it comes out of the larynx with a small hollowing of the tongue, and nearly the same opening of the lips as in pronouncing *a* or *e*. Its sound varies: in some words it is long, as *high*, *mind*, &c.; in others short, as *bid*, *hid*, *sin*, &c.; in others, again, it is pronounced like *y*, as in *collier*, *onion*, &c.; and in a few, it sounds like *ee*, as in *machine*, *magazine*, &c. No English word ends in *i*, *e* being either added to it, or else the *i* turned into *y*.

But besides the vowel there is the *jod* consonant; which because of its different pronunciation, has likewise a different form, thus J, j. In English, it has the soft sound of *g*; nor is it used, but when *g* soft is required before vowels, where *g* is usually hard: thus we say, *jack*, *jet*, *join*, &c. instead of *gack*, *get*, *goin*, &c. which would be contrary to the genius of the English language.

I, used as a numeral, signifies *one*, and stands for so many units as it is repeated times; thus I, one; II, two; III, three, &c.; and when put before a higher numeral, it subtracts itself, as IV, four, IX. nine, &c. But, when set after it, so many are added to the higher numeral as there are I's added: thus VI is 5+1, or six; VII, 5+2, or seven; VIII, 5+3, or eight. The ancient Romans likewise used IↃ for 500, CIↃ for 1000, IↃↃ for 5000, CCIↃↃ for 10,000. Farther than this, as Pliny observes, they did not go in their notation; but when necessary repeated the last number, as CCCIↃↃ CCCIↃↃ for 200,000; CCCIↃↃ, CCCIↃↃ, CCCIↃↃ, for 300,000; and so on.

The ancients sometimes changed *i* into *u*; *decumus* for *decimus*; *maxumus* for *maximus*, &c.

According to Plato, the vowel *i* is proper to express delicate but humble things, as in this verse in Virgil which abounds in *i*'s, and is generally admired:

Accipiunt inimicum imbrem, rimisque fatiscunt.

I, used as an abbreviature, is often substituted for the whole word Jesus, of which it is the first letter.

JABBOK, a brook on the other side of the Jordan, the spring whereof is in the mountains of Gilead. It falls into Jordan pretty near the sea of Tiberias, to the south of this sea. Near this brook the patriarch Jacob wrestled with the angel (Gen. xxxii. 22.). The Jabbok separated the land of the Ammonites from the Gaulanites, and the territories of Og king of Bashan.

JABESH, or *Jabesh-Gilead*, was the name of a city in the half tribe of Manasseh, beyond Jordan. The scripture calls it generally Jabesh-Gilead, because it lay in Gilead, at the foot of the mountains which go by this name. Eusebius places it six miles from Pella, towards Gerasa; and consequently it must be eastward of the sea of Tiberias.

JABIRU. See Mycteria, Ornithology *Index*.

JABLONSKI, Daniel Ernest, a learned Polish Protestant divine, born at Dantzick in 1660. He became successively minister of Magdeburg, Lissa, Koningsberg, and Berlin; and was at length ecclesiastical counsellor, and president of the academy of sciences at the latter. He took great pains to effect an union between the Lutherans and Calvinists; and wrote some works which are in good esteem, particularly Meditations on the origin of the Scriptures, &c. He died in 1741. Jablonski

JABLONSKI, *Theodore*, counsellor of the court of Prussia, and secretary of the royal academy of sciences in Berlin, was also a man of distinguished merit. He loved the sciences, and did them honour, without that ambition which is generally seen in men of learning; it was owing to this modesty that the greatest part of his works were published without his name. He published, in 1711, a French and German Dictionary; a Course of Morality, in 1713; a Dictionary of Arts and Sciences, 1721; and translated *Tacitus de moribus Germanorum* into High Dutch, in 1724.

JABNE, in *Ancient Geography*, a town of Palestine, near Joppa; called *Jamnia* or *Jamnial*, by the Greeks and Romans. In Joshua xv. it seems to be called *Jabneel*; but in 2 Chron. xxvi. *Jabne*. It was taken from the Philistines by Uzziah, who demolished its fortifications. Its port, called *Jamnitarum portus*, lay between Joppa and Azotus.

JACAMAR. See Alcedo, Ornithology *Index*.

JACCA, an ancient town of Spain, in the kingdom of Arragon, with a bishop's see, and a fort; seated on a river of the same name among the mountains of Jacca, which are part of the Pyrenees. W. Long. 0. 19. N. Lat. 42. 26.

JACK, in *Mechanics*, a well-known instrument of common use for raising great weights of any kind.

The common kitchen-jack is a compound engine, where the weight is the power applied to overcome the friction of the parts and the weight with which the spit is charged; and a steady and uniform motion is obtained by means of the fly.

Jack, in the sea language, a sort of flag or colours, displayed from a mast erected on the outer end of a ship's bowsprit. In the British navy the jack is nothing more than a small union flag, composed of the intersection of the red and white crosses; but in merchant-ships this union is bordered with a red field. See the article Union.

Jack is used also for a horse or wooden frame to saw timber upon; for an instrument to pull off a pair of boots; for a great leathern pitcher to carry drink in; for a small bowl that serves as a mark at the exercise of bowling; and for a young pike.

Jack-Flag, in a ship, that which is hoisted up at the sprit-sail top-mast head.

Jack-Daw, the English name of a species of corvus. See Corvus, Ornithology *Index*. Jack-Daw.

This bird is very mischievous to the farmer and gardener; and is of such a thievish disposition, that he will carry away much more than he can make use of. There is a method of destroying them by a kind of springes much used in England; and is so useful, that it ought to be made universal.=A stake of about five feet long is to be driven firmly into the ground, and made so fast that it cannot move, and so sharp in

Jack-Daw ‖ Jacobites.

the point that the bird cannot settle upon it. Within a foot of the top there must be a hole bored through it, of three quarters of an inch diameter; through this hole is to be put a stick of about eight inches long; then a horse-hair springe or noose is to be made fast to a thin hazel-wand, and this brought up to the place where the short stick is placed, and carried with it through the hole, the remainder being left open under that stick. The other end of the hazel rod is to be put through a hole in the stake near the ground, and fastened there. The stake is to be planted among the jack-daw's food, and he will naturally be led to settle on it; but finding the point too sharp, he will descend to the little cross stick. This will sink with his weight; and the springe will receive his leg, and hold him fast.

JACKALL, in *Zoology*. See CANIS, MAMMALIA *Index*.

JACOB, the son of Isaac and Rebekah, was born in the year of the world 2168, before Jesus Christ 1836. The history of this patriarch is given at large in the book of Genesis. He died in Egypt in the 147th year of his age. Joseph directed that the body should be embalmed, after the manner of the Egyptians; and there was a general mourning for him throughout Egypt for seventy days. After this, Joseph and his brethren, accompanied with the principal men of Egypt, carried him, with the king of Egypt's permission, to the burying-place of his fathers near Hebron, where his wife Leah had been interred. When they were come into the land of Canaan, they mourned for him again seven days; upon which occasion the place where they staid was called Abelmisraim, or the mourning of the Egyptians.

JACOB, *Ben Hajim*, a rabbi famous for the collection of the Masorah in 1525; together with the text of the bible, the Chaldaic paraphrase, and Rabbinical commentaries.

JACOB, *Ben Naphtali*, a famous rabbi of the 5th century: he was one of the principal massorets, and bred at the school of Tiberias in Palestine with Ben Aser, another principal massoret. The invention of points in Hebrew to serve for vowels, and of accents to facilitate the reading of the language, are ascribed to these two rabbies; and said to be done in an assembly of the Jews held at Tiberias, A. D. 476.

JACOBINE MONKS, the same with DOMINICANS.

JACOBINES, the name assumed by a party or club at the beginning of the French revolution, composed of members of the national assembly. The club held its meetings in the hall belonging to the Jacobin friars, from which it derived its name. For an account of the views and influence of the Jacobin club in the French revolution, see FRANCE.

JACOBITES, a term of reproach bestowed on the persons who, vindicating the doctrines of passive obedience and non-resistance with respect to the arbitrary proceedings of princes, disavow the revolution in 1688, and assert the supposed rights, and adhere to the interests, of the late abdicated King James and his family.

JACOBITES, in church history, a sect of Christians in Syria and Mesopotamia; so called, either from Jacob a Syrian who lived in the reign of the emperor Mauritius, or from one Jacob a monk who flourished in the year 550.

Jacobite ‖ Jaggernaut.

The Jacobites are of two sects, some following the rites of the Latin church, and others continuing separated from the church of Rome. There is also a division among the latter, who have two rival patriarchs. As to their belief, they hold but one nature in Jesus Christ; with respect to purgatory and prayers for the dead, they are of the same opinion with the Greeks and other eastern Christians: they consecrate unleavened bread at the eucharist, and are against confession, believing that it is not of divine institution.

JACOBUS, a gold coin, worth 25 shillings; so called from King James I. of England, in whose reign it was struck. See COIN.

We usually distinguish two kinds of *Jacobus*, the *old* and the *new*; the former valued at 25 shillings, weighing six penny-weights ten grains; the latter, called also *Carolus*, valued at 23 shillings, in weight five penny-weights twenty grains.

JAQUINIA, a genus of plants belonging to the hexandria class, and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*.

JACULATOR, or SHOOTING-FISH. See CHÆTODON, ICHTHYOLOGY *Index*.

JADDESSES is the name of an inferior order of priests in Ceylon, who have the care of the chapels appropriated to the genii, who form a third order of gods among these idolaters. These priests are applied to by the people in a time of disease or calamity, who offer a cock on their behalf to appease the anger of the dæmons.

JADE-STONE, or LAPIS NEPHRITICUS, a species of MINERAL. See MINERALOGY *Index*.

JAFFA, an ancient town of Asia in Palestine, formerly called *Joppa*. Its former grandeur is now greatly diminished. It is situated 40 miles north-west of Jerusalem. It has long been a favourite resort of pilgrims proceeding to Jerusalem. It was taken by the French under Bonaparte, in February 1799, but afterwards retaken and fortified. E. Long. 35. 0. N. Lat. 32. 16.

JAFFATEEN ISLANDS, the name of four islands in the Red sea, visited by Mr Bruce in his travels. They are joined together by shoals or sunk rocks; are crooked or bent like half a bow; and are dangerous for ships in the night-time, because there seems to be a passage between them, to which, while the pilots are paying attention, they neglect two small sunk rocks which lie almost in the middle of the entrance in deep water.

JAFNAPATAN, a sea-port town, seated at the north-east end of the island of Ceylon in the East Indies. The Dutch took it from the Portuguese in 1658, but it is now with the rest of the island in possession of the British. They export from thence great quantities of tobacco, and some elephants, which are accounted the most docile of any in the whole world. E. Long. 80. 25. N. Lat. 9. 40.

JAGENDORF, a town and castle of Silesia, capital of a province of the same name, seated on the river Oppa. E. Long. 17. 47. N. Lat. 50. 4.

JAGGERNAUT, a black pyramidal stone worshipped by the Gentoos, who pretend that it fell from heaven, or was miraculously presented on the place where their temple stands. There are many other idols of this figure in India; which, however, are all but

Jaggernaut || Jago.

but accounted copies from the Jaggernaut. According to the best information Mr Grose could obtain, this stone is meant to represent the power presiding over universal generation, which they attribute to the genial heat and influence of the sun acting in subordination to it. Domestic idols of the form of the Jaggernaut, and distinguished by the same name, are made by the Gentoos. These are niched up in a kind of triumphal car, decorated with gilding and tinsel; which for some days they keep in the best apartment in their house. During this time their devotion consists in exhibiting the most obscene postures, and acting all manner of lasciviousness, in sight as it were of the idol, and as the most acceptable mode of worship to that deity it represents; after which they carry it in its gilded car in procession to the Ganges, and throw in all together as an acknowledgment to that river of its congenial fertilization with that of the sun. Formerly this machine was decorated with jewels and other expensive ornaments; but the Indians are now become less extravagant, as they found that the Moors and Christians, watching the places where they threw in their idols, dived for them for the sake of the jewels with which they were adorned.

Our author conjectures, that this pyramidal form of the Gentoo idol was originally taken from that of flame, which always inclines to point upwards. From this Indian deity he supposes the shape of the Paphian Venus to have been derived, for which Tacitus could not account. This image had nothing of the human form in it, but rose orbicularly from a broad basis, and in the nature of a race goal tapering to a narrow convex a-top; which is exactly the figure of the idol in India, consecrated to such an office as that heathen deity was supposed to preside over, and to which, on the borders of the Ganges especially, the Gentoo virgins are brought to undergo a kind of superficial defloration before they are presented to their husbands.

JAGHIRE, an assignment made in Bengal by an imperial grant upon the revenue of any district, to defray civil or military charges, pensions, gratuities, &c.

JAGHIREDER, the holder of a jaghire.

JAGO, Richard, an ingenious poet, was vicar of Snitterfield in Warwickshire, and rector of Kimcote in Leicestershire. He was the intimate friend and correspondent of Mr Shenstone, contemporary with him at Oxford, and, it is believed, his school-fellow; was of University college; took the degree of M. A. July 9. 1739; was author of several poems in the 4th and 5th volumes of Dodsley's Poems; published a sermon, in 1755, on the Causes of Impenitence considered, preached May 4. 1755, at Harbury in Warwickshire, where he was vicar, on occasion of a conversation said to have passed between one of the inhabitants and an apparition in the church-yard there; wrote "Edge-hill," a poem, for which he obtained a large subscription in 1767; and was also author of "Labour and Genius," 1768, 4to; of "The Blackbirds," a beautiful elegy in the Adventurer; and of many other ingenious performances. He died May 28. 1781.

St Jago, a large river of South America, which rises in the audience of Quito in Peru. It is navigable; and falls into the South sea, after having watered a fertile country abounding in cotton-trees, and inhabited by wild Americans.

St Jago, the largest, most populous, and fertile of the Cape Verd islands, on the coast of Africa, and the residence of the Portuguese viceroy. It lies about 13 miles eastward from the island of Mayo, and abounds with high barren mountains; but the air, in the rainy season, is very unwholesome to strangers. Its produce is sugar, cotton, wine, and some excellent fruits. The animals are black cattle, horses, asses, deer, goats, hogs, civet-cats, and some very pretty green monkeys with black faces. Jago.

Sir George Staunton, in the account which he gives of this island, observes, that it is liable to long and excessive droughts, for which it is perhaps impossible to assign any philosophical cause. It was in a state of absolute famine at the end of 1792, when visited by the embassy to China, and the waters of the rivers were almost dried up. The surface of the earth was devoid of herbage, the cattle had nearly all perished, as much from the want of food as from drought.

"What were the uncommon circumstances (says Sir George) that took place in the atmosphere of that part of Africa to which the Cape de Verd islands lie contiguous, or in the vast expanse of continent extending to the east behind it, and from which this direful effect must have proceeded (as they happened where no man of science existed to observe or to record them), will remain unknown, nor is theory bold enough to supply the place of observation. Whatever was the cause which thus arrested the bountiful hand of nature, by drawing away the sources of fertility, it was observable, that some few trees and plants preserved their luxuriance, indicating that they still could extract from the arid earth whatever portion of humidity it was necessary to derive from thence for the purpose of vegetable life, though it was denied to others."

Beside palm trees, frequently found verdant amidst burning sands, nothing could be more rich in flavour, or abound more with milky though corrosive juice, than the *asclepias gigantea*, growing plentifully without culture, but undisturbed. The physic nut tree appeared as if its perpetuity was not to be affected by any drought. Some species of *mimosa*, or sensitive plant, were most common, and did not appear to languish.

But the annual produce of agriculture had almost wholly disappeared, and the sugar canes had little resemblance to any thing like vegetation. Yet vegetation quickly revived whenever any moisture could be conveyed through the soil.

The residence of the viceroy is represented by Sir George as a hamlet, consisting of 100 small dwellings, only one story high, scattered nearly a mile in length, and one-third as much in breadth. Not being commanded by any eminence, it was a situation which admitted of defence, yet the fort was nearly in ruins, and the few guns mounted on it were mostly honey-combed. Amidst the ruins of St Jago, was found a Portuguese, to whom one of the party was recommended, by whom they were hospitably received, and treated with every species of tropical fruits from his garden.

St Jago, a handsome and considerable town of South America, the capital of Chili, with a good harbour, a bishop's see, and a royal audience. It is seated in a large and beautiful plain, abounding with all the necessaries of life, at the foot of the Cordilleras, on the river Mapocho, which runs across it from east to west.

Here

Jago ‖ Jalemus.

Here are several canals and a dyke, by means of which they water the gardens and cool the streets.—It is very much subject to earthquakes. W. Long. 69. 35. S. Lat. 33. 40.

St Jago de Cuba, a town situated on the southern coast of the island of Cuba, in the bottom of a bay, with a good harbour, and on a river of the same name. W. Long. 76. 44. N. Lat. 20. 0.

Jago de los Cavalleros, a town of America, and one of the principal of the island of Hispaniola. It is seated on the river Yague, in a fertile soil, but bad air. W. Long. 70. 5. N. Lat. 19. 40.

St Jago del Entero, a town of South America, one of the most considerable of Tucuman, and the usual residence of the inquisitor of the province. It is seated on a large river, in a flat country, where there is game, tygers, guanacos, commonly called *camel-sheep*, &c.

Jago de la Vega, otherwise called *Spanish-town*, is the capital of the island of Jamaica, in the West Indies; and stands in 18° 1′ north latitude, and 76° 45′ west longitude. It is about a mile in length, and little more than a quarter of a mile in breadth, and contains about 6000 inhabitants of all colours and denominations. This town is situated in a delightful plain on the banks of the Rio Cobre, 13 miles from Kingston, and 10 from Port Royal. It is the residence of the commander in chief: and here the supreme court of judicature is held, four times in the year, viz. on the last Tuesdays of February, May, August, and November, and sits three weeks.—St Jago de la Vega is the county-town of Middlesex, and belongs to the parish of St Catharine.

JAGUAR, or JAQUAR, a name given to the Brasilian ounce, a species of FELIS. See FELIS, MAMMALIA *Index*.

JAGUEER, in East India affairs, any pension from the Grand Mogul, or king of Delhi; generally such as are assigned for military services.

JAGUEERDAR, the holder or possessor of a jagueer. It comes from three Persian words, *Ja*, "a place;" *gueriftun*, "to take;" and *dashtun*, "to hold;" *quasi*, "a place-holder or pensioner." In the times of the Mogul empire, all the great officers of the court, called *omrahs*, were allowed jagueers, either in lands of which they collected the revenues, or assignments upon the revenues for specified sums, payable by the lord-lieutenant of a province: which sums were for their maintenance, and the support of such troops as they were necessitated to bring into the field when demanded by the emperor, as the condition of their jagueers, which were always revokable at pleasure.

JAIL-FEVER, a very dangerous distemper of the contagious kind, arising from the putrescent disposition of the blood and juices. See MEDICINE *Index*.

JAIS, a religious sect among the Hindoos. See SUPPLEMENT.

JALAP, the root of a species of convolvulus or bind-weed. See CONVOLVULUS, BOTANY and MATERIA MEDICA *Index*.

JALEMUS, in antiquity, a kind of mournful song, used upon occasion of death, or any other affecting accident. Hence the Greek proverbs had their original, ιαλεμω εικοτερος, or ψυχροτερος, i. e. *more sad or colder than a jalemus*, εις των ιαλεμων ευθαπτος, *worthy to be ranked among jalemuses*. Jalemus ‖ Jamaica.

JALOFFS, or YALOFFS, are a warlike people, inhabiting most of that part of Africa, lying between Senegal and the Mandingo states on the Gambia. Their lips, according to Mr Park, are not so protuberant as those of the generality of Africans; and though their skin is of the deepest black, they are esteemed by the white traders as the most sightly of the negroes in that part of the continent. They are divided into several independent states, and more resemble the Mandingoes than any other nation in their manners and government, but much exceed them in the manufacture of cotton cloth, spinning the wool to a finer thread, weaving it in a broader loom, and dyeing it of a better colour. They make excellent soap, by boiling ground nuts in water, and then adding a ley of wood ashes. They likewise manufacture very good iron, which they carry to Bandore to exchange for salt. Their language, it is said, is copious and significant, and is frequently learned by Europeans trading to Senegal.

A generous disposition, according to the testimony of Mr Park, is said to distinguish them above the generality of savages; they know how to return an act of kindness shewn them by others in distress, and their conduct towards their enemies, in many instances, is said to be worthy of imitation.

JAMADAR, an officer of horse or foot, in Hindostan. Also the head or superintendant of the Peons in the Sewaury or train of any great man.

JAMAICA, an island of the West Indies, the largest of the Antilles, lying between 17° and 19° N. Lat. and between 76° and 79° W. Long.; in length near 120 miles, and about 50 in breadth. It approaches in its figure to an oval. The windward passage right before it hath the island of Cuba on the west, and Hispaniola on the east, and is about 20 leagues in breadth.

This island was discovered by Admiral Christopher Columbus in his second voyage, who landed upon it May 5. 1494; and was so much charmed with it, as always to prefer it to the rest of the islands: in consequence of which, his son chose it for his dukedom. It was settled by Juan d'Esquivel, A. D. 1509, who built the town, which, from the place of his birth, he called *Seville*, and 11 leagues farther to the east stood Melilla. Oriston was on the south side of the island, seated on what is now called *Blue Fields River*. All these are gone to decay; but St Jago, now Spanish-town, is still the capital. The Spaniards held this country 160 years, and in their time the principal commodity was cacao; they had an immense stock of horses, asses, and mules, and prodigious quantities of cattle. The English landed here under Penn and Venables, May 11. 1654, and quickly reduced the island. Cacao was also their principal commodity till the old trees decayed, and the new ones did not thrive; and then the planters from Barbadoes introduced sugar-canes, which hath been the great staple ever since.

The prospect of this island from the sea, by reason of its constant verdure, and many fair and safe bays, is wonderfully pleasant. The coast, and for some miles within, the land is low; but removing farther, it rises and becomes hilly. The whole isle is divided by a ridge of mountains running east and west, some rising

Jamaica. to a great height; and these are composed of rock and a very hard clay; through which, however, the rains that fall incessantly upon them have worn long and deep cavities, which they call *gullies*. These mountains, however, are far from being unpleasant, as they are crowned even to their summits with a variety of fine trees. There are also about a hundred rivers that issue from them on both sides: and, though none of them are navigable for any thing but canoes, are both pleasing and profitable in many other respects. The climate, like that of all countries between the tropics, is very warm towards the sea, and in marshy places unhealthy; but in more elevated situations cooler; and, where people live temperately, to the full as wholesome as in any part of the West Indies. The rains fall heavy for about a fortnight in the months of May and October; and, as they are the cause of fertility, are styled seasons. Thunder is pretty frequent, and sometimes showers of hail: but ice and snow are never seen, although on the tops of the mountains, and at no very great height, the air is exceedingly cold.

The most eastern parts of this ridge are known under the name of the *Blue Mountains*, some of which exceed 5000 feet in height. This great chain of rugged rocks defends the south side of the island from those boisterous north-west winds, which might be fatal to their produce. The streams, though small, supply the inhabitants with good water, which is a great blessing, as their wells are generally brackish. The Spaniards were persuaded that these hills abounded with metals: but we do not find that they wrought any mines; or if they did, it was only copper, of which they said the bells in the church of St Jago were made. They have several hot springs, which have performed great cures. The climate was certainly more temperate before the great earthquake; and the island was supposed to be out of the reach of hurricanes, which since that time it hath severely felt. The heat, however, is very much tempered by land and sea breezes; and it is asserted, that the hottest time of the day is about eight in the morning. In the night, the wind blows from the land on all sides, so that no ships can then enter their ports.

In an island so large as this, which contains above four millions of acres, it may be very reasonably conceived that there are great variety of soils. Some of these are deep, black, and rich, and mixed with a kind of potters earth; others shallow and sandy; and some of a middle nature. There are many savannahs, or wide plains, without stones, in which the native Indians had luxuriant crops of maize, which the Spaniards turned into meadows, and keep in them prodigious herds of cattle. Some of these savannahs are to be met with even amongst the mountains. All these different soils may be justly pronounced fertile, as they would certainly be found, if tolerably cultivated, and applied to proper purposes. A sufficient proof of this will arise from a very cursory review of the natural and artificial produce of this spacious country.

It abounds in maize, pulse, vegetables of all kinds, meadows of fine grass, a variety of beautiful flowers, and as great a variety of oranges, lemons, citrons, and other rich fruits. Useful animals there are of all sorts, horses, asses, mules, black cattle of a large size, and sheep, the flesh of which is well tasted, though their wool is hairy and bad. Here are also goats and hogs in great plenty; sea and river fish; wild, tame, and water fowl. Amongst other commodities of great value, they have the sugar-cane, cacao, indigo, pimento, cotton, ginger, and coffee; trees for timber and other uses, such as mahogany, manchineel, white wood which no worm will touch, cedar, olives, and many more. Besides these, they have fustick, red wood, and various other materials for dyeing. To these we may add a multitude of valuable drugs, such as guaiacum, china, sarsaparilla, cassia, tamarinds, vanellas, and the prickle-pear or opuntia, which produces the cochineal; with no inconsiderable number of odoriferous gums. Near the coast they have salt-ponds, from which at one time they supplied their own consumption, and might certainly make any quantity they pleased. Jamaica.

As this island abounds with rich commodities, it is happy likewise in having a number of fine and safe ports. Point Morant, the eastern extremity of the island, hath a fair and commodious bay. Old Harbour is also a convenient port, so is Maccary bay, and there are at least twelve more between this and the western extremity, which is Point Negrillo.

The town of Port Royal stood on a point of land running far out into the sea, narrow, sandy, and incapable of producing any thing. Yet the excellence of the port gradually attracted inhabitants, and there were near two thousand houses in the town in its most flourishing state, and which let at high rents. The earthquake by which it was overthrown happened on the 7th of June 1692, and numbers of people perished in it. This earthquake was followed by an epidemic disease, of which upwards of three thousand died: yet the place was rebuilt; but the greatest part was reduced to ashes by a fire that happened on the 9th of January 1703, and then the inhabitants removed mostly to Kingston. It was, however, rebuilt for the third time; and was rising towards its former grandeur, when it was overwhelmed by the sea, August 28. 1722. There is, notwithstanding, a small town there at this day. Hurricanes since that time have often happened, and occasioned terrible devastations.

The island is divided into three counties, Middlesex, Surry, and Cornwall; containing 20 parishes, over earth of which presides a magistrate styled a *custos*. The whole contain 36 towns and villages, and 18 churches and chapels. The population in 1787 was estimated at 250,000 negroes, 30,000 whites, 10,000 people of colour, and 1400 maroons; in all 291,400 inhabitants.

In 1812, the number of slaves was 319,912. The number of whites was not published; but estimating it at 40,000, the whole population would be 360,000.

The administration of public affairs is by a governor and council of royal appointment, and the representatives of the people in the lower house of assembly. They meet at Spanish-town, and things are conducted with great order and dignity. The lieutenant-governor and commander in chief has 5000l. currency, or 3571l. 8s. 6¾d. sterling, besides which, he has a house in Spanish-town, a pen or a farm adjoining, and a polink or mountain for provisions; a secretary, an under-secretary, and a domestic chaplain.

The honourable the council consists of a president and

Jamaica. and 10 members; with a clerk, a chaplain, usher of the black rod, and messenger.

The honourable the assembly consists of 43 members, one of whom is chosen speaker. To this assembly belong a clerk, with 1000l. salary; a chaplain, 150l.; messenger, 700l.; deputy, 140l.; and printer, 200l.

The number of members returned by each parish and county are, for *Middlesex*, 17, viz. St Catharine 3, St Dorothy 2, St John 2, St Thomas in the Vale 2, Clarendon 2, Vere 2, St Mary 2, St Ann 2: For *Surry* 16, viz. Kingston 3, Port Royal 3, St Andrew 2, St David 2, St Thomas in the East 2, Portland 2, St George 2: For *Cornwall* 10, viz. St Elizabeth 2, Westmoreland 2, Hanover 2, St James 2, Trelawney 2.

The high court of chancery consists of the chancellor (governor for the time being), 25 masters in ordinary, and 20 masters extraordinary; a register, and clerk of the patents; serjeant at arms, and mace-bearer. The court of vice admiralty has a sole judge, judge surrogate, and commissary, king's advocate, principal register, marshal, and a deputy-marshal. The court of ordinary, consists of the ordinary (governor for the time being), and a clerk. The supreme court of judicature has a chief justice, and 16 assistant judges; attorney-general; clerk of the court; clerk of the crown; solicitor for the crown: 33 commissioners for taking affidavits; a provost-marshal-general, and eight deputies; 18 barristers, besides the attorney general and advocate-general; and upward of 120 practising attorneys at law.

The commerce of Jamaica is very considerable, not only with all parts of Great Britain and Ireland, but with Africa, North and South America, the West India islands, and the Spanish main. The ships annually employed are upwards of 500 sail.

The average expence of the cultivation of sugar is 20s. 10d. per cwt. independent of the interest of capital and produce of rum. The works necessary for making 200 hogsheads annually cost 10,000l. Jamaica currency; and an estate producing such a quantity requires 40,000l. to establish it, viz. 250 negroes, at 70l. each, amounting to 17,500l.; 180 cattle and mules, at 30l. each, 5400l.; buildings for the manufactures, and houses for negroes and owners, 7000l.; and land, 10,000l. The value of the buildings and machinery on the sugar plantations varies from 4000l. to 25,000l. sterling. Estates containing 1300 negroes, and a due proportion of whites, require about 10,000l. sterling of supplies annually of British manufactures and provisions. One hundred barrels of herrings are required for 250 negroes in the course of the year. Jamaica.

Coffee was little cultivated in Jamaica till 1788. The coffee plantations are generally situated in hilly districts, which are unfit for sugar plantations. The cultivation has increased rapidly. In the three years ending 1807, the average export was 28½ millions of pounds, which, at 6l. per cwt. its cost in Jamaica, produces 1,700,000l. Cotton is not cultivated to a very great extent. Very little indigo is raised; and in all probability it will never again become a staple commodity.

The following is a general view of the property and chief produce of the whole island in 1786, as prefixed by Mr Beckford to his descriptive account of Jamaica.

Counties.	Sugar Estates	Other Settlements.	Slaves.	Produce Hhds. of Sugar.	Cattle.
Middlesex	323	917	87100	31500	75000
Surry	350	540	75600	34900	80000
Cornwall	388	561	90000	39000	69500
Total	1061	2018	255700	105400	224500

It should be here observed, that where two hogsheads of sugar are made, there is at least one puncheon of rum; but the proportion has been of late years more considerable.

A comparative view between the years 1768 and 1786.

	Middlesex in		Surry in		Cornwall in		Total in		Amount of Increase.
	1768	1786	1768	1786	1768	1786	1768	1786	
Sugar Estates	239	323	146	350	266	388	651	1061	410
Sugar Hhds.	24050	31500	15010	34900	29100	39000	68160	105400	37240
Negroes	66744	87100	39542	75600	60614	93000	166900	255700	88800
Cattle	59510	75000	21465	80000	54775	69500	135750	224500	88750

The official value of the imports from Jamaica to Great Britain, and the exports to the island, were in

	Imports.	*Exports.*
1809	L.4,068,897	L.3,033,234
1810	4,303,337	2,303,179

The principal articles were

	Coffee. Cwt.	*Sugar.* Cwt.	*Rum.* Gallons.	*Pimento.* Lbs.	*Cotton.* Lbs.
1809	214,415	1,104,612	3,470,250	2,219,367	1,886,748
1810	252,808	1,611,422	3,428,452	2,372,964	1,798,172

The

Jamaica

The common valuation of an estate in Jamaica is as follows:

	Sterling.
Cane land (the canes upon it valued separately) at - -	L. 22 per acre.
Plants - - -	22 ditto.
Cane land, in ratoons and young plants,	15 ditto.
Pasture land - - -	8 ditto.
Wood land - - -	4 ditto.
Provisions - - -	14 ditto.
Negroes - - -	57 ditto.
Mules - - -	22 ditto.
Steers - - -	10 ditto.
Breeding cattle, &c. -	5 ditto.
Works, water, carts, &c. -	from 7 to 10,000.

The revenues of the island amount to about 300,000l. annually, Jamaica currency. They are derived from taxes, consisting chiefly of a duty on negroes imported, an excise on rum, &c. a poll tax on slaves and stock, and a rate on rents and wheel carriages.

There are nineteen beneficed clergymen in the island, each of whom receives 420l. per annum, subject to a deduction of 10 per cent. for a widow's fund. Besides this stipend, there are surplus fees, which in Kingston, Spanish-town, and St Andrews, are very great. The last has also considerable glebe lands annexed to the living.

All white males, from fifteen to sixty, are obliged by law to provide themselves with arms, and to enter either into the cavalry or infantry of the militia.

JAMBI, or JAMBIS, a sea-port town and small kingdom of Asia, on the eastern coast of the island of Sumatra. It is a trading place. The Dutch have a fort here; and export pepper from thence, with the best sort of canes. E. Long. 105. 55. S. Lat. 0. 30.

JAMBIA VICUS. See YAMBO.

IAMBIC, in ancient poetry, a sort of verse, so called from its consisting either wholly, or in great part, of iambus's. See IAMBUS.

Ruddiman makes two kinds of iambic, viz. dimeter and trimeter; the former containing four feet, and the latter six. And as to the variety of their feet, they consist wholly of iambus's, as in the two following verses of Horace:

1 2 3 4 5 6
Dim. *Inar|sit æ'stuo|sius|*
Trim. *Suis|& i|psa Ro|ma vi|ribus|ruit.*

Or, a dactylus, spondeus, anapestus, and sometimes tribrachys, obtain in the odd places; and the tribrachys also in the even places, excepting the last.—Examples of all which may be seen in Horace; as,

Dimeter.

1 2 3 4 5 6
Canidi|a tra|ctavit|dapes|
Vide|re prope|rantes domum|

Trimeter.

Quò quò|scele|sti rui|tis|aut|cur dex|teris.
Prius|que cœ|lum si' det in|ferius|mari.
Aliti|bus at|que cani|bus homi|cid' He|ctorem.
Pavidum|que lepo|r' aut ad|venam laqueo|gruem.

JAMBLICUS, the name of two celebrated Platonic philosophers, one of whom was of Colchis, and the other of Apamea in Syria. The first, whom Julian equals to Plato, was the disciple of Anatolius and Porphyry, and died under the reign of the emperor Constantine.—The second also enjoyed great reputation. Julian wrote several letters to him, and it is said he was poisoned under the reign of Valens.—It is not known to which of the two we ought to attribute the works we have in Greek under the name of *Jamblicus*, viz. 1. The history of the life of Pythagoras, and the sect of the Pythagoreans. 2. An exhortation to the study of philosophy. 3. A piece against Porphyry's letter on the mysteries of the Egyptians.

Jamblicus. Jamblicus.

JAMBOLIFERA, a genus of plants, belonging to the octandria class; and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*.

IAMBUS, in the Greek and Latin prosody, a poetical foot, consisting of a short syllable followed by a long one; as in

⏑ – ⏑ – ⏑ – ⏑
Θεὸς λεγω, *Dei, meas.*

Syllaba longa brevi subjecta vocatur iambus, as Horace expresses it; who also calls the iambus a swift, rapid foot, *pes citus*.

The word, according to some, took its rise from Iambus, the son of Pan and Echo, who invented this foot; or, perhaps, who only used sharp biting expressions to Ceres, when afflicted for the death of Proserpine. Others rather derive it from the Greek ἰος, *venenum*, "poison;" or from ἰαμβιζω, *maledico*, "I rail, or revile;" because the verses composed of iambus's were at first only used in satire.

JAMES, ST, called the *Greater*, the son of Zebedee, and the brother of John the Evangelist, was born at Bethsaida, in Galilee. He was called to be an apostle, together with St John, as they were mending their nets with their father Zebedee, who was a fisherman; when Christ gave them the name of *Boanerges*, or *Sons of Thunder*. They then followed Christ, were witnesses with St Peter of the transfiguration on Mount Tabor, and accompanied our Lord in the garden of olives. It is believed that St James first preached the gospel to the dispersed Jews; and afterwards returned to Judea, where he preached at Jerusalem, when the Jews raised up Herod Agrippa against him, who put him to a cruel death about the year 44. Thus St James was the first of the apostles who suffered martyrdom. St Clement of Alexandria relates, that his accuser was so struck with his constancy, that he became converted and suffered with him. There is a magnificent church at Jerusalem which bears the name of *St James*, and belongs to the Armenians. The Spaniards pretend, that they had St James for their apostle, and boast of possessing his body; but Baronius, in his Annals, refutes their pretensions.

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JAMES, *St*, called *the Less*, an apostle, the brother of Jude, and the son of Cleophas and Mary the sister of the mother of our Lord, is called in Scripture the *Just*, and the *brother* of Jesus, who appeared to him in particular after his resurrection. He was the first bishop of Jerusalem, when Annanias II. high priest of the Jews, caused him to be condemned and delivered him into the hands of the people and the Pharisees, who threw him down from the steps of the temple, when a fuller dashed out his brains with a club, about the year 62. His life was so holy, that Josephus considers

James. siders the ruin of Jerusalem as a punishment inflicted on that city for his death. He was the author of the epistle which bears his name.

St JAMES *of the Sword*, (*San Jago del Espada*), a military order in Spain, instituted in 1170, under the reign of Ferdinand II. king of Leon and Gallicia. Its end was to put a stop to the incursions of the Moors; three knights obliging themselves by a vow to secure the roads. An union was proposed and agreed to in 1170 between these and the canons of St Eloy; and the order was confirmed by the pope in 1175. The highest dignity in that order is that of grand master, which has been united to the crown of Spain. The knights are obliged to make proof of their descent from families that have been noble for four generations on both sides; they must also make it appear that their said ancestors have neither been Jews, Saracens, nor heretics; nor even to have been called in question by the the inquisition. The novices are obliged to serve six months in the galleys, and to live a month in a monastery. Heretofore they were truly religious, and took a vow of celibacy; but Alexander III. gave them a permission to marry. They now make no vows but of poverty, obedience, and conjugal fidelity; to which, since the year 1652, they have added that of defending the immaculate conception of the holy Virgin. Their habit is a white cloak, with a red cross on the breast. This is esteemed the most considerable of all the military orders in Spain: the king carefully preserves the office of grand master in his own family, on account of the rich revenues and offices, whereof it gives him the disposal. The number of knights is much greater now than formerly, all the grandees choosing rather to be received into this than into the order of the Golden Fleece; inasmuch as this puts them in a fair way of attaining to commands, and gives them many considerable privileges in all the provinces of Spain, but especially in Catalonia.

JAMES, the name of several kings of Scotland and of Great Britain. See (*Histories of*) SCOTLAND and BRITAIN.

JAMES I. king of Scotland in 1423, the first of the house of Stuart, was not only the most learned king, but the most learned man, of the age in which he flourished. This ingenious and amiable prince fell into the hands of the enemies of his country in his tender youth, when he was flying from the snares of his unnatural ambitious uncle, who governed his dominions, and was suspected of designs against his life. Having secretly embarked for France, the ship was taken by an English privateer off Flamborough-head; and the prince and his attendants (among whom was the earl of Orkney), were confined in a neighbouring castle until they were sent to London. See (*History of*) SCOTLAND.

The king of England knew the value of the prize he had obtained, and kept it with the most anxious care. The prince was conducted to the Tower of London immediately after he was seized, April 12. A. D. 1405, in the 13th year of his age, and there kept a close prisoner till June 10, A. D. 1407, when he was removed to the castle of Nottingham, from whence he was brought back to the Tower, March 1. A. D. 1414, and there confined till August 3, in the same year, when he was conveyed to the castle of Windsor, where he was detained till the summer of A. D. 1417; when Henry V. for political reasons, carried him with him into France in his second expedition. In all these fortresses his confinement, from his own account of it, was so severe and strict, that he was not so much as permitted to take the air. In this melancholy situation, so unsuitable to his age and rank, books were his chief companions, and study his greatest pleasure. He rose early in the morning, immediately applied to reading, to divert him from painful reflections on his misfortunes, and continued his studies, with little interruption, till late at night. James being naturally sensible, ingenious, and fond of knowledge, and having received a good education in his early youth, under the direction of Walter Wardlaw, bishop of St Andrews, by this close application to study, became an universal scholar, an excellent poet, and exquisite musician. That he wrote as well as read much we have his own testimony, and that of all our historians who lived near his time. Bowmaker, the continuator of Fordun, who was his contemporary, and personally acquainted with him, spends ten chapters in his praises, and in lamentations on his death; and, amongst other things, says, that his knowledge of the scriptures, of law, and philosophy, was incredible. Hector Boece tells us, that Henry IV. and V. furnished their royal prisoner with the best teachers in all the arts and sciences; and that, by their assistance, he made great proficiency in every part of learning and the fine arts; that he became a perfect master in grammar, rhetoric, poetry, music, and all the secrets of natural philosophy, and was inferior to none in divinity and law. He observes further, that the poems he composed in his native tongue were so beautiful, that you might easily perceive he was born a poet; but that his Latin poems were not so faultless; for though they abounded in the most sublime sentiments, their language was not so pure, owing to the rudeness of the times in which he lived. This prince's skill in music was remarkable. Walter Bower, abbot of Inchcolm, who was intimately acquainted with that prince, assures us, that he excelled all mankind in that art, both vocal and instrumental; and that he played on eight different instruments (which he names), and especially on the harp, with such exquisite skill, that he seemed to be inspired *. King James was not only an excellent performer, but also a capital composer both of sacred and secular music; and his fame on that account was extensive, and of long duration. Above a century after his death, he was celebrated in Italy as the inventor of a new and pleasing kind of melody, which had been admired and imitated in that country. This appears from the following testimony of Alessandro Tassoni, a writer who was well informed, and of undoubted credit. "We may reckon among us moderns, James king of Scotland, who not only composed many sacred pieces of vocal music, but also of himself invented a new kind of music, plaintive and melancholy, different from all other; in which he hath been imitated by Carlo Gesualdo, prince of Venosa, who, in our age, hath improved music with new and admirable inventions †." As the prince of Venosa imitated King James, the other musicians of Italy imitated the prince of Venosa. "The most noble Carlo Gesualdo,

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* *Scotichronicon*, lib. xvi. c. 18.

† *Alessand. Tass. Pensieri Diversi*, lib. x. Sir John Hawkins, vol. iv. p. 5, 6.

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do, the prince of musicians of our age, introduced such a style of modulation, that other musicians yielded the preference to him; and all singers and players on stringed instruments, laying aside that of others, everywhere embraced his*. All the lovers, therefore, of Italian or Scotch music, are much indebted to the admirable genius of King James I. who, in the gloom and solitude of a prison, invented a new kind of music, plaintive indeed, and suited to his situation, but at the same time so sweet and soothing, that it hath given pleasure to millions in every succeeding age.

* Id. vol. iii. p. 212.

As James I. of Scotland was one of the most accomplished princes that ever filled a throne, he was also one of the most unfortunate. After spending almost 20 years in captivity, and encountering many difficulties on his return into his native kingdom, he was murdered by barbarous assassins in the prime of life. In the monuments of his genius, he hath been almost equally unfortunate. No vestiges are now remaining of his skill in architecture, gardening, and painting; though we are assured by one who was well acquainted with him, that he excelled in all these arts†. Many of the productions of his pen have also perished; for he tells us himself that he wrote much‡; and we know of only three of his poems that are now extant, viz. Christ's Kirk on the Green—Peebles at the Play—and the King's Quair, which was lately discovered by Mr Warton, and hath been published by another gentleman §. But slender as these remains are, they afford sufficient evidence, that the genius of this royal poet was not inferior to that of any of his contemporaries; and that it was equally fitted for the gayest or the gravest strains.

† *Scotichronicon*, lib. xvi. cap. 30.

‡ *King's Quair*, canto i. stan. 13.

§ See *Poetical Remains of James I.* Edin. 1783. and *Warton's Hist. Poet.* vol. ii. p. 125.

JAMES II. king of Scotland, 1437, succeeded his father, being then not seven years of age; and was killed at the siege of Roxburgh in 1460, aged 29.

JAMES III. king of Scotland, succeeded his father, in 1460, in the 7th year of his age. The most striking feature in the character of this prince, unjustly represented as tyrannical by several historians, was his fondness for the fine arts, and for those who excelled in them, on whom he bestowed more of his company, confidence, and favour, than became a king in his circumstances. This excited in his fierce and haughty nobles dislike and contempt of their sovereign, and indignation against the objects of his favour; which produced the most pernicious consequences, and ended in a rebellion that proved fatal to James, who was slain in 1488, aged 36.

JAMES IV. king of Scotland, succeeded his father in 1488. He was a pious and valiant prince; subdued his rebellious subjects; and afterwards, taking part with Louis XII. against Henry VIII. of England, he was slain in the battle of Flowden-field in 1513, aged 41.—This king is acknowledged to have had great accomplishments both of mind and body. His Latin epistles are classical, compared with the barbarous style of the foreign princes with whom he corresponded. Like his father, he had a taste for the fine arts, particularly that of sculpture. The attention he paid to the civilization of his people, and his distribution of justice, merit the highest praise. After all, the virtues of James appear to have been more shining than solid: and his character was that of a fine gentleman and a brave knight, rather than a wise or a great monarch. At the time of his death, he was only in his forty-first year. Like all the princes of his family (to his great grandson James VI.) his person was handsome, vigorous, and active. From their coins, it does not appear that either he, or any of his predecessors of the Stuart race, wore their beards, as did all his successors, to the reign of Charles II.

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JAMES V. king of Scotland, in 1513, was but 18 months old when his father lost his life. When of age, he assisted Francis I. king of France against the emperor Charles V.; for which service Francis gave him his eldest daughter in marriage, in 1535. This princess died in two years; and James married Mary of Lorraine, daughter of Claud duke of Guise, and widow of Louis d'Orleans, by whom he had only one child, the unfortunate Mary queen of Scots, born only eight days before his death, which happened December 13. 1542, in the 35th year of his age. This was the first prince of his family who died a natural death since its elevation to the throne. He died, however, of a broken heart, occasioned by differences with his barons. He was formed by nature to be the ornament of a throne and a blessing to his people; but his excellent endowments were rendered in a great measure ineffectual by an improper education. Like most of his predecessors, he was born with a vigorous, graceful person, which, in the early part of his reign, was improved by all the manly exercises then in use. This prince was the author of a humorous composition in poetry, which goes by the name of the *Gaberlunzie Man*.

JAMES VI. king of Scotland in 1567, and of England in 1603, was son of Mary queen of Scots; whom he succeeded in Scotland, as he did Elizabeth in England. Strongly attached to the Protestant religion, he signalized himself in its support; which gave rise to the horrid conspiracy of the Papists to destroy him and all the English nobility by the Gunpowder Plot, discovered November 5. 1605. The following year, a political test of loyalty was required, which secured the king's person, by clearing the kingdom of those disaffected Roman Catholic subjects who would not submit to it. The chief glory of this king's reign consisted in the establishment of new colonies, and the introduction of some manufactures. The nation enjoyed peace, and commerce flourished during his reign. Yet his administration was despised both at home and abroad: for, being the head of the Protestant cause in Europe, he did not support it in that great crisis, the war of Bohemia; abandoning his son-in-law the elector Palatine; negociating when he should have fought; deceived at the same time by the courts of Vienna and Madrid; continually sending illustrious ambassadors to foreign powers, but never making a single ally. He valued himself much upon his polemical writings; and so fond was he of theological disputations, that to keep them alive, he founded, for this express purpose, Chelsea-college; which was converted to a much better use by Charles II. His *Basilicon Doron*, Commentary on the Revelation, writings against Bellarmine, and his *Dæmonologia*, or doctrine of witchcraft, are sufficiently known. There is a collection of his writings and speeches in one folio volume. Several other pieces of his are extant; some of them in the Cabala, others in manuscript in the British Museum,

James. and others in Howard's collection. He died in 1625, in the 59th year of his age, and 23d of his reign.

JAMES II. king of England, Scotland, &c. 1685, grandson of James I. succeeded his brother Charles II. It is remarkable, that this prince wanted neither courage nor political abilities whilst he was duke of York; on the contrary, he was eminent for both: but when he ascended the throne, he was no longer the same man. A bigot from his infancy to the Romish religion and to its hierarchy, he sacrificed every thing to establish them, in direct contradiction to the experience he had acquired, during the long reign of his brother, of the genius and character of the people he was to govern. Guided by the Jesuit Peters his confessor, and the infamous chancellor Jeffries, he violated every law enacted for the security of the Protestant religion; and then, unable to face the resentment of his injured subjects, he fled like a coward, instead of disarming their rage by a dismission of his Popish ministers and priests. He rather chose to live and die a bigot, or, as he believed, a saint, than to support the dignity of his ancestors, or perish beneath the ruins of his throne. The consequence was the revolution of 1689. James II. died in France in 1710, aged 68. He wrote Memoirs of his own life and campaigns to the Restoration; the original of which is preserved in the Scotch college at Paris. This piece is printed at the end of Ramsay's life of Marshal Turenne. 2. Memoirs of the English affairs, chiefly naval, from the year 1660 to 1673. 3. The royal sufferer, King James II. consisting of meditations, soliloquies, vows, &c. said to be composed by his majesty at St Germains. 4. Three letters; which were published by William Fuller, gent. in 1702, with other papers relating to the court of St Germains, and are said in the title page to be printed by command.

JAMES, *Thomas*, a learned English critic and divine, born about the year 1571. He recommended himself to the office of keeper of the public library at Oxford, by the arduous undertaking of publishing a catalogue of the MSS. in each college library at both universities. He was elected to this office in 1602, and held it 18 years, when he resigned it to prosecute his studies with more freedom. In the convocation held with the parliament at Oxford in 1625, of which he was a member, he moved to have proper commissioners appointed to collate the MSS. of the fathers in all the libraries in England, with the Popish editions, in order to detect the forgeries in the latter; but this proposal not meeting with the desired encouragement, he engaged in the laborious task himself, which he continued until his death in 1629. He left behind him a great number of learned works.

JAMES, *Richard*, nephew of the former, entered into orders in 1615: but, being a man of humour, of three sermons preached before the university, one concerning the observation of Lent was without a text, according to the most ancient manner; another against the text; and the third beside it. About the year 1619, he travelled through Wales, Scotland, Shetland, into Greenland and Russia, of which he wrote observations. He assisted Selden in composing his *Marmora Arundeliana*; and was very serviceable to Sir Robert Cotton, and his son Sir Thomas, in disposing and settling their noble library. He died in 1638; and has an extraordinary character given him by Wood for learning and abilities.

James, Jamesone. JAMES, *Dr Robert*, an English physician of great eminence, and particularly distinguished by the preparation of a most excellent fever powder, was born at Kinverston in Staffordshire, A. D. 1703: his father a major in the army, his mother a sister of Sir Robert Clarke. He was of St John's-college in Oxford, where he took the degree of A. B. and afterwards practised physic at Sheffield, Lichfield, and Birmingham successively. Then he removed to London, and became a licentiate in the college of physicians; but in what years is not known. At London he applied himself to writing as well as practising physic; and in 1743, published a Medical Dictionary, in 3 vols folio. Soon after he published an English translation, with a Supplement by himself, of *Ramazzini de morbis artificum*; to which he also prefixed a piece of Frederic Hoffman upon Endemical Distempers, 8vo. In 1746, The Practice of Physic, 2 vols 8vo; in 1760, On Canine Madness, 8vo; in 1764, A Dispensatory, 8vo. June 25. 1755, when the king was at Cambridge, James was admitted by mandamus to the doctorship of physic. In 1788, were published, A Dissertation upon Fevers, and A Vindication of the Fever-powder, 8vo; with A Short Treatise on the Disorders of Children, and a very good print of Dr James. This was the 8th edition of the Dissertation, of which the first was printed in 1751; and the purpose of it was, to set forth the success of this powder, as well as to describe more particularly the manner of administering it. The Vindication was posthumous and unfinished: for he died March 23. 1776, while he was employed upon it.—Dr James was married, and left several sons and daughters.

James's Powder, a medicine prepared by Robert James, which is known also by the name of *James's fever powder*. See MATERIA MEDICA *Index*.

James's Town, a borough and market town of Ireland, in the county of Leitrim, and province of Connaught; situated five miles north-west of Carrick on Shannon, and 73 north-west of Dublin, in N. Lat. 53. 44. W. Long. 8. 15. It has a barrack for a company of foot, and returns two members to parliament; patronage in the family of King.—It has three fairs.

St James's Day, a festival of the Christian church, observed on the 25th of July, in honour of St James the greater, son of Zebedee.

Epistle of St James, a canonical book of the New Testament, being the first of the *catholic* or *general* epistles; which are so called, as not being written to one but to several Christian churches.

This general epistle is addressed partly to the believing and partly to the infidel Jews; and is designed to correct the errors, soften the ungoverned zeal, and reform the indecent behaviour of the latter; and to comfort the former under the great hardships they then did, or shortly were to suffer, for the sake of Christianity.

JAMESONE, GEORGE, an excellent painter, justly termed the *Vandyck of Scotland*, was the son of Andrew Jamesone, an architect; and was born at Aberdeen, in 1586. He studied under Rubens, at Antwerp; and, after his return, applied with indefatigable industry to portraits in oil, though he sometimes practised

Jamesone || Jane.

practised in miniature, and also in history and landscapes. His largest portraits were somewhat less than life. His earliest works are chiefly on board, afterwards on a fine linen cloth smoothly primed with a proper tone to help the harmony of his shadows. His excellence is said to consist in delicacy and softness, with a clear and beautiful colouring; his shades not charged, but helped by varnish, with little appearance of the pencil. When King Charles I. visited Scotland in 1633, the magistrates of Edinburgh, knowing his majesty's taste, employed this artist to make drawings of the Scottish monarchs; with which the king was so pleased, that, enquiring for the painter, he sat to him, and rewarded him with a diamond ring from his own finger. It is observable, that Jamesone always drew himself with his hat on, either in imitation of his master Rubens, or on having been indulged in that liberty by the king when he sat to him. Many of Jamesone's works are in both the colleges of Aberdeen; and the Sibyls there he is said to have drawn from living beauties in that city. His best works are from the year 1630 to his death, which happened at Edinburgh in 1644.

JAMYN, AMADIS, a celebrated French poet in the 16th century. He is esteemed the rival of Ronsard, who was his cotemporary and friend. He was secretary and chamber-reader in ordinary to Charles IX. and died about 1585. He wrote, 1. Poetical works, two vols. 2. Philosophical discourses to Pasicharis and Rodanthe, with seven academical discourses. 3. A translation of the Iliad of Homer, begun by Hugh Sabel, and finished by Jamyn; with a translation into French verse of the first three books of the Odyssey.

JANE *of* FLANDERS, a remarkable lady, who seems to have possessed in her own person all the excellent qualities of both sexes, was the wife of John de Mountfort, a competitor for the dukedom of Brittany upon the death of John III. This duke, dying without issue, left his dominions to his nice Jane, married to Charles de Blois nephew to the king of France; but John de Mountfort, brother to the late duke though by a second marriage, claimed the duchy, and was received as successor by the people of Nantes. The greatest part of the nobility swore fealty to Charles de Blois, thinking him best supported. This dispute occasioned a civil war; in the course of which John was taken prisoner, and sent to Paris. This misfortune would have entirely ruined his party, had not his interest been supported by the extraordinary abilities of his wife, Jane of Flanders. Bold, daring, and intrepid, she fought like a warrior in the field; shrewd, sensible, and sagacious, she spoke like a politician in the council; and endowed with the most amiable manners and winning address, she was able to move the minds of her subjects by the force of her eloquence, and mould them exactly according to her pleasure. She happened to be at Rennes when she received the news of her husband's captivity; but that disaster, instead of depressing her spirits, served only to rouse her native courage and fortitude. She forthwith assembled the citizens; and, holding in her arms her infant son, recommended him to their care and protection in the most pathetic terms, as the male heir of their ancient dukes, who had always governed them with lenity and indulgence, and to whom they had ever professed the most zealous attachment. She declared herself willing to run all hazards with them in so just a cause; pointed out the resources that still remained in the alliance of England; earnestly beseeching them to make one vigorous effort against an usurper, who being forced upon them by the intrigues of France, would, as a mark of his gratitude, sacrifice the liberties of Brittany to his protector. The people moved by the affecting appearance, and animated by the noble conduct of the princess, vowed to live and die with her in defending the rights of her family; and their example was followed by almost all the Bretons. The countess went from place to place, encouraging the garrisons of the several fortresses, and providing them with every thing necessary for their subsistence: after which she shut herself up with her son in Hennebon, where she resolved to wait for the succours which the king of England (Edward III.) had promised to send to her assistance. Charles de Blois, accompanied by the dukes of Burgundy and Bourbon, and many other noblemen, took the field with a numerous army, and having reduced Rennes, laid siege to Hennebon, which was defended by the countess in person. This heroine repulsed the assailants in all their attacks with the most undaunted courage; and observing one day that their whole army had left the camp to join in a general storm, she rushed forth at a postern-gate, with three hundred horse, set fire to their tents and baggage, killed their sutlers and servants, and raised such a terror and consternation through all their quarters, that the enemy gave over their assault, and getting betwixt her and the walls, endeavoured to cut off her retreat to the city. Thus intercepted, she put the spurs to her horse, and without halting, galloped directly to Brest, which lay at the distance of two-and-twenty miles from the scene of action. There being supplied with a body of five hundred horse, she immediately returned, and fighting her way through one part of the French camp, was received into Hennebon, amidst the acclamations of the people. Soon after this the English succours appeared, and obliged the enemy to raise the siege.

Jane || Janizaries.

JANEIRO, or RIO JANEIRO, a river and province of Brasil in South America, seated between the tropic of Capricorn and 22° of S. Lat. See RIO JANEIRO.

JANICULUM, or JANICULARIS, a hill of ancient Rome, added by Ancus Martius; the burial place of Numa, and of Statius Cæcilius the poet: to the east and south, having the Tiber; to the west, the fields; to the north, a part of the Vatican. So called, either from an ancient city, (Virgil); or because it was a *janua*, or gate, from which to issue out and make incursions on the Tuscans, (Verrius Flaccus). Now called *Mons Aureus*, corruptly *Montorius*, from its sparkling sands. From this hill, on account of its height, is the most extensive prospect of Rome: but it is less inhabited, because of its gross air; neither is it reckoned among the seven hills. Hither the people retired, and were hence afterwards recalled by Q. Hortensius the dictator, (Pliny).

JANIZARIES, an order of infantry in the Turkish armies; reputed the grand seignior's foot-guards. Vossius derives the word from *genizers*, which in the Turkish language signifies *novi homines* or *milites*. D'Herbelot tells us, that *jenitcheri* signifies a *new band*, or *troop*; and that the name was first given by Amurath

Janizaries, Jansen.

rath I. called the *Conqueror*, who choosing out one-fifth part of the Christian prisoners whom he had taken from the Greeks, and instructing them in the discipline of war and the doctrines of their religion, sent them to Hagi Bektasche (a person whose pretended piety rendered him extremely revered among the Turks), to the end that he might confer his blessing on them, and at the same time give them some mark to distinguish them from the rest of the troops.—Bektasche, after blessing them in his manner, cut off one of the sleeves of the fur-gown which he had on, and put it on the head of the leader of this new militia; from which time, viz. the year of Christ 1361, they have still retained the name *jenitcheri*, and the fur-cap.

As, in the Turkish army, the European troops are distinguished from those of Asia; the Janizaries are also distinguished into *janizaries of Constantinople*, and *of Damascus*. Their pay is from two aspers to twelve *per diem*; for when they have a child, or do any signal piece of service, their pay is augmented.—Their dress consists of a dolyman, or long gown, with short sleeves, which is given them annually by the grand seignior on the first day of Ramazan. They wear no turbeau; but, in lieu of that, a kind of cap, which they call *zarcola*, and a long hood of the same stuff hanging on their shoulders. On solemn days they are adorned with feathers, which are stuck in a little case on the fore part of the bonnet.—Their arms, in Europe, in time of war, are a sabre, a carabine or musket, and a cartouch-box hanging on the left side. At Constantinople, in time of peace, they wear only a long staff in their hand. In Asia, where powder and fire-arms are more uncommon, they wear a bow and arrows, with a poignard, which they call *haniare*.—Though the janizaries are not prohibited marriage, yet they rarely marry, nor then but with the consent of their officers; as imagining a married man to make a worse soldier than a bachelor.—It was Osman, or Ottoman, or, as others will have it, Amurath, who first instituted the order of janizaries. They were at first called *jaja*, that is, footmen, to distinguish them from the other Turks, the troops whereof consisted most of cavalry. The number of janizaries is generally above 40,000; divided into 162 companies or chambers called *odas*, in which they live together at Constantinople as in a convent. They are of a superior rank to all other soldiers, and are also more arrogant and factious, and it is by them that the public tranquillity is mostly disturbed. The government may therefore be said to be in the hands of the janizaries. They have, however, some good qualities: they are employed to escort travellers, and especially ambassadors and persons of high rank, on the road; in which case they behave with the utmost zeal and fidelity.

JANIZARIES, at Rome, are officers or pensioners of the pope, called all *participantes*, on account of certain rites or duties which they enjoy in the annates, bulls, or expeditions, and the Roman chancery.—Most authors are mistaken in the nature of their office: the truth is, they are officers of the third bench or college of the Roman chancery. The first bench consists of writers, the second of abbreviators, and the third of *janizaries*; who are a kind of correctors and revisors of the pope's bulls.

JANSEN, CORNELIUS, bishop of Ypres, one of the most learned divines of the 17th century, and principal of the sect called from his name *Jansenists*. He was born in Holland of Catholic parents, and studied at Louvain. Being sent into Spain to transact some business of consequence relating to the university, the Catholic king, viewing with a jealous eye the intriguing policy of France, engaged him to write a book to expose the French to the pope as no good Catholics, since they made no scruple of forming alliances with Protestant states. Jansen performed this task in his *Mars Gallicus*; and was rewarded with a mitre, being promoted to the see of Ypres in 1635. He had, among other writings, before this, maintained a controversy against the Protestants upon the points of grace and predestination; but his *Augustinus* was the principal labour of his life, on which he spent above 20 years. See the next article.

Jansen, Jansenists.

JANSENISTS, in church history, a sect of the Roman Catholics in France, who followed the opinions of Jansenius, bishop of Ypres, and doctor of divinity of the universities of Louvain and Douay, in relation to grace and predestination.

In the year 1640, the two universities just mentioned, and particularly Father Molina and Father Leonard Celsus, thought fit to condemn the opinions of the Jesuits on grace and free-will. This having set the controversy on foot, Jansenius opposed to the doctrine of the Jesuits the sentiments of St Augustine; and wrote a treatise on grace, which he entitled *Augustinus*. This treatise was attacked by the Jesuits, who accused Jansenius of maintaining dangerous and heretical opinions; and afterwards, in 1642, obtained of Pope Urban VIII. a formal condemnation of the treatise written by Jansenius: when the partizans of Jansenius gave out that this bull was spurious, and composed by a person entirely devoted to the Jesuits. After the death of Urban VIII. the affair of Jansenism began to be more warmly controverted, and gave birth to an infinite number of polemical writings concerning grace. And what occasioned some mirth, was the titles which each party gave to their writings; one writer published *The torch of St Augustine*, another found *Snuffers for St Augustine's torch*, and Father Vernon formed *A Gag for the Jansenists*, &c. In the year 1650, 68 bishops of France subscribed a letter to Pope Innocent X. to obtain an inquiry into and condemnation of the five following propositions, extracted from Jansenius's Augustinus: 1. Some of God's commandments are impossible to be observed by the righteous, even though they endeavour with all their power to accomplish them. 2. In the state of corrupted nature, we are incapable of resisting inward grace. 3. Merit and demerit, in a state of corrupted nature, do not depend on a liberty which excludes necessity, but on a liberty which excludes constraint. 4. The Semipelagians admitted the necessity of an inward preventing grace for the performance of each particular act, even for the beginning of faith: but they were heretics in maintaining that this grace was of such a nature, that the will of man was able either to resist or obey it. It is Semipelagianism to say, that Jesus Christ died, or shed his blood, for all mankind in general.

In the year 1652, the pope appointed a congregation for examining into the dispute in relation to grace. In this congregation Jansenius was condemned; and the

Jansenists, Janssens.

the bull of condemnation, published in May 1653, filled all the pulpits in Paris with violent outcries and alarms against the heresy of the Jansenists. In the year 1656, Pope Alexander VII. issued out another bull, in which he condemned the five propositions of Jansenius. However, the Jansenists affirm, that these propositions are not to be found in this book; but that some of his enemies having caused them to be printed on a sheet, inserted them in the book, and thereby deceived the pope. At last Clement XI. put an end to the dispute by his constitution of July 17. 1705; in which, after having recited the constitutions of his predecessors in relation to this affair, he declares, "That in order to pay a proper obedience to the papal constitutions concerning the present question, it is necessary to receive them with a respectful silence." The clergy of Paris, the same year, approved and accepted this bull, and none dared to oppose it.

This is the famous bull *Unigenitus*, so called from its beginning with the words *Unigenitus Dei Filius*, &c. which has occasioned so much confusion in France.

JANSSENS, Abraham, history-painter, was born at Antwerp in 1569. He was cotemporary with Rubens, and also his competitor, and in many of the finest parts of the art was accounted not inferior to that celebrated master. It is reported, that having wasted his time and his substance by a life of dissipation and pleasure, and falling into necessitous circumstances, which he imputed more to ill fortune than to his own neglect of his business, he grew envious at the grandeur in which Rubens appeared, and impatient at his merit and success; and with peevish insolence challenged him to paint a picture with him only for fame, which he was willing to submit to impartial judges. But Rubens rejected the proposal, answering with modesty, that he freely submitted to him, and the world would certainly do justice to them both.

Sandrart, who had seen several of his works, assures us, that he not only gave a fine roundness and relief to his figures, but also such a warmth and clearness to the carnations, that they had all the look of real flesh; and his colouring was as durable as it was beautiful, retaining its original lustre for a number of years. His most capital performance is said to be the resurrection of Lazarus, which is in the cabinet of the elector Palatine, and is an object of admiration to all who behold it.

Janssens, *Victor Honorius*, history-painter, was born at Brussels in 1664, and was a disciple of one Volders, under whose direction he continued for seven years; in which time he gave many proofs of a genius far superior to those who were instructed in the same school. He afterwards went to Rome, where he attended particularly the works of Raphael; he designed after the antiques, and sketched the beautiful scenes around that city; and in a short time his paintings rose in esteem, and the principal nobility of Rome were desirous to employ him. He associated with Tempesta, the celebrated landscape-painter, for several years, and painted the figures in the works of that great master as long as they resided together.

Janssens composed historical subjects, both in a small and a large size; but he found the demand for his small pictures so considerable, that he was induced to paint most frequently in that size. During 11 years he continued at Rome, which barely sufficed for his finishing those pictures for which he was engaged; nor could he have even then been at his liberty, had he not limited himself to a number, and determined not to undertake more.—Returning to Brussels, his performances were as much admired there as they had before been in Italy; but having married, and gradually become the father of 11 children, he was compelled to change his manner of painting in small, and to undertake only those of the large kind, as being more lucrative, more expeditious, and also more agreeable to his genius and inclination. He adorned most of the churches and palaces of his own country with his compositions.—The invention of this artist was fruitful; he designed correctly, his colouring is natural and pleasing, his pencil free, and the airs of his heads have beauty and elegance. As to the difference between his large and small paintings, it is observed, that in correctness and taste they had an equal degree of merit; but the colouring of the former appears more raw and cold than the colouring of the latter; and it is agreed, that for small historical pictures, he was preferable to all the painters of his time.

Janssens, Januarius.

Janssen, *Cornelius*, called *Johnson*, an eminent painter of portraits, was born at Amsterdam (though in the Chronological tables, and in Sandrart, it is improperly asserted that he was born in London), and he resided in England for several years; where he was engaged in the service of King James I. and painted several excellent portraits of that monarch, as also of his children and of the principal nobility of his court. He had not the freedom of hand, nor the grace of Vandyck; but in other respects he was accounted his equal, and in the finishing his pictures superior. His paintings are easily distinguished by their smooth, clear, and delicate tints, and by that character of truth and nature with which they are strongly marked. He generally painted on board; and, for the most part, his draperies are black; probably because the opposition of that tint made his flesh colours appear more beautifully bright, especially in his female figures. It is said that he used a quantity of ultramarine in the black colours, as well as in his carnations; which may be one great cause of their preserving their original lustre even to this day. Frequently he painted in a small size in oil, and often copied his own works in that manner. His fame began to be somewhat obscured, on the arrival of Vandyck in England; and the civil war breaking out some time after, induced him to return to his own country, where his paintings were in the highest esteem. He died in 1685.

St JANUARIUS, the patron saint of Naples, where his head is occasionally carried in procession, in order to stay the eruption of Vesuvius. The liquefaction of his blood is a famous miracle at Naples. The saint suffered martyrdom about the end of the third century. When he was beheaded, a pious lady of Naples caught about an ounce of his blood, which has been carefully preserved in a bottle ever since, without having lost a single grain of its weight. This of itself, were it equally demonstrable, might be considered as a greater miracle than the circumstance on which the Neapolitans lay the whole stress, viz. that the blood which has congealed, and acquired a solid

form

Januarius, January.

form by age, is no sooner brought near the head of the saint, than, as a mark of veneration, it immediately liquefies. This experiment is made three different times every year, and is considered by the Neapolitans as a miracle of the first magnitude.

The substance in the bottle, which is exhibited for the blood of the saint, has been supposed to be something naturally solid, but which melts with a small degree of heat. When it is first brought out of the cold chapel, it is in its natural solid state; but when brought before the saint by the priest, and rubbed between his warm hands and breathed upon for some time, it melts; and this is the whole mystery. But Dr Moore, though he confesses himself unable to explain on what principle the liquefaction depends, is convinced that it must be something different from this: "For he had it (he informs us) from the most satisfactory authority, from those who had opportunities of knowing, and who believe no more in the miracle than the stanchest Protestant, that this congealed mass has sometimes been found in a liquid state in cold weather, before it was touched by the priest, or brought near the head of the saint; and that, on other occasions, it has remained solid when brought before him, notwithstanding all the efforts of the priest to melt it. When this happens, the superstitious, which, at a very moderate calculation, comprehends 99 in 100 of the inhabitants of this city, are thrown into the utmost consternation, and are sometimes wrought up by their fears into a state of mind which is highly dangerous both to their civil and ecclesiastical governors. It is true, that this happens but seldom: for, in general, the substance in the phial, whatever it may be, is in a solid form in the chapel, and becomes liquid when brought before the saint: but as this is not always the case, it affords reason to believe, that whatever may have been the case when this miracle or trick, call it which you please, was first exhibited, the principle on which it depends has somehow or other been lost, and is not now understood fully even by the priests themselves; or else they are not now so expert as formerly, in preparing the substance which represents the saint's blood, so as to make it remain solid when it ought, and liquefy the instant it is required."

The head and blood of the saint are kept in a kind of press, with folding doors of silver, in the chapel of St Januarius belonging to the cathedral church. The real head is probably not so fresh and well preserved as the blood. On that account, it is not exposed to the eyes of the public; but is inclosed in a large silver bust, gilt and enriched with jewels of high value. This being what appears to the people, their idea of the saint's features and complexion are taken entirely from the bust.—The blood is kept in a small repository by itself.

JANUARY, the name of the first month of the year, according to the computation now used in the west. The word is derived from the Latin *Januarius*, a name given it by the Romans from Janus, one of their divinities, to whom they attributed two faces, because on the one side the first day of January looked towards the new year; and on the other towards the old one. The word *Januarius* may also be derived from *janua*, "gate;" in regard this month being the first, is, as it were, the gate of the year.

January, Janus.

January and February were introduced into the year by Numa Pompilius; Romulus's year beginning in the month of March.—The kalends, or first day of this month, was under the protection of Juno, and in a peculiar manner consecrated to Janus by an offering of a cake made of new meal and new salt, with new frankincense and new wine. On the first day of January a beginning was made of every intended work, the consuls elect took possession of their office, who, with the flamens, offered sacrifices and prayers for the prosperity of the empire. On this day all animosities were suspended, and friends gave and received new year's gifts, called *Strenæ*. On this day too the Romans above all things took care to be merry and divert themselves, and oftentimes such a scene of drunkenness was exhibited, that they might with propriety enough have distinguished it with the name of *All-fools day*.

The Christians heretofore fasted on the first day of January, by way of opposition to the superstitions and debaucheries of the heathens.

JANUS, in the heathen worship, the first king of Italy, who, it is said, received Saturn into his dominions, after his being driven from Arcadia by Jupiter. He tempered the manners of his subjects, and taught them civility; and from him they learned to improve the vine, to sow corn, and to make bread. After his death, he was adored as a god.

This deity was thought to preside over all new undertakings. Hence, in all sacrifices, the first libations of wine and wheat were offered to Janus, all prayers prefaced with a short address to him; and the first month of the year was dedicated to and named from him. See JANUARY.

Janus was represented with two faces, either to denote his prudence, or that he views at once the past and approaching years; he had a sceptre in his right hand, and a key in his left, to signify his extensive authority, and his invention of locks.

Though this is properly a Roman deity, the abbé la Pluche represents it as derived from the Egyptians, who made known the rising of the dog-star, which opened their solar year, with an image with a key in its hand, and two faces, one old and the other young, to typify the old and new year.

Temple of JANUS, in ancient history, a square building at Rome (as some say) of entire brass, erected by Romulus, and so large as to contain a statue of Janus five feet high, with brazen gates on each side, which were always kept open in time of war, and shut in time of peace. But the Romans were so much engaged in war, that this temple was shut only twice from the foundation of Rome till the reign of Augustus, and six times afterwards. It was first shut during the long reign of Numa, who instituted this ceremony. 2. In the year of the city 519, after the end of the first Punic war. 3. By Augustus after the battle of Actium, in the year of Rome 725. 4. On Augustus's return from the war which he had against the Cantabrians in Spain, in the year of Rome 729. 5. Under the same emperor, in 744, about five years before the birth of Christ, when there was a general peace throughout the whole Roman empire, which lasted 12 years. 6. Under Nero, 811. 7. Under Vespasian, 824. 8. Under Constantius, when, upon Magnentius's death, he was left sole possessor of the empire, 1105. Some dispute the

authority

Janus, Japan.

authority on which it is said to have been shut by Constantius, and say that the last time of its being shut was under Gordian, about the year of Rome 994. Virgil gives us a noble description of this custom, *Æn.* lib. iii. ver. 607. The origin of this custom is not certainly known.

JANUS was also the name of a street in Rome, inhabited for the most part by bankers and usurers. It was so called from two statues of Janus which were erected there, one at the top, the other at the bottom, of the street. The top of the street was therefore called *Janus Summus*, the bottom *Janus Imus*, and the middle *Janus Medius*. Hence Horace, lib. 1. epist. 1.

Hæc Janus summus ab imo perdocet.

And Sat. 3. Lib. 2.

——Postquam
omnis res mea Janum
Ad medium fracta est.——

JAPAN, a general name for several islands lying between the eastern coast of Asia and the western coast of America, and which all together form a large and powerful empire. They extend from the 30th to the 41st degree of north latitude, and from the 129th to the 143d of east longitude.

Were South and North Britain divided by an arm of the sea, Japan might be most aptly compared to England, Scotland, and Ireland, with their respective smaller islands, peninsulas, bays, channels, &c. all under the same monarch.

The Europeans call the empire *Japan;* but the inhabitants *Niphon*, from the greatest island belonging to it; and the Chinese *Ciphon*, probably on account of its eastern situation; these names signifying, in both languages, the *Basis* or *Foundation of the Sun.* It was first discovered by the Portuguese about the year of Christ 1542.

Most of the islands which compose it are surrounded with such high craggy mountains, and such shallow and boisterous seas, that sailing about them is extremely dangerous; and the creeks and bays are choked up with such rocks, shelves, and sands, that it looks as if Providence had designed it to be a kind of little world by itself. These seas have likewise many dangerous whirlpools, which are very difficult to pass at low water, and will suck in and swallow up the largest vessels, and all that comes within the reach of their vortex, dashing them against the rocks at the bottom; insomuch that some of them are never seen again, and others thrown upon the surface at some miles distance. Some of these whirlpools also make a noise terrible to hear.

The Chinese pretend that the Japan islands were first peopled by themselves: but it is more probable that the original inhabitants were a mixture of different nations, driven thither by those tempestuous seas, at different times.

As these islands lie in the fifth and sixth climates, they would be much hotter in summer than England, were not the heats refreshed by the winds which continually blow from the sea around them, and to which they are much exposed by the height of their situation: this circumstance, however, not only renders their winters excessively cold, but the seasons more inconstant. They have great falls of snow in winter, which are commonly followed by hard frosts. The rains in summer are very violent, especially in the months of June and July, which on that account are called *sat-suki*, or *water-months.* The country is also much subject to dreadful thunders and lightnings, as well as storms and hurricanes, which frequently do a great deal of damage. Japan.

The soil, though naturally barren and mountainous, by the industry of the inhabitants, not only supplies them with every necessary of life, but also furnishes other countries with them; producing, besides corn, the finest and whitest rice and other grains, with a great variety of fruits, and vast numbers of cattle of all sorts. Besides rice, and a sort of wheat and barley, with two sorts of beans, they have Indian wheat, millet, and several other kinds in great abundance. Their seas, lakes, and rivers, abound with fish; and their mountains, woods, and forests, are well stocked with horses, elephants, deer, oxen, buffaloes, sheep, hogs, and other useful animals. Some of their mountains also are enriched with mines of gold, silver, and copper, exquisitely fine, besides tin, lead, iron, and various other minerals and fossils; whilst others abound with several sorts of marble and precious stones. Of these mountains, some may be justly ranked among the natural rarities of the country; one, in particular, in the great island of Niphon, is of such prodigious height as to be easily seen forty leagues off at sea, though its distance from the shore is about eighteen. Some authors think it exceeds the famous Peak of Teneriffe; but it may rather be called a cluster or group of mountains, among which are no less than eight dreadful volcanoes, burning with incredible fury, and often laying waste the country round about them: but to make some amends, they afford great variety of medicinal waters, of different degrees of heat; one of these, mentioned by Varenius, is said to be as hot as burning oil, and to scorch and consume every thing thrown into it.

The many brooks and rivers that have their sources among the mountains, form a great number of delightful cascades, as well as some dreadful cataracts. Among the great variety of trees in the forests here, the cedars exceed all of that kind through India, for straightness, height, and beauty. They abound in most of the islands, especially the largest.

Their seas, besides fish, furnish them with great quantities of red and white coral, and some pearls of great value, besides a variety of sea plants and shells; which last are not inferior to those that are brought from Amboyna, the Molucca and other easterly islands.

The vast quantity of sulphur with which most of the Japan islands abounds, makes them subject to frequent and dreadful earthquakes. The inhabitants are so accustomed to them, that they are scarcely alarmed at any, unless they chance to be very terrible indeed, and lay whole towns in ruins, which very often proves the case. On these occasions, they have recourse to extraordinary sacrifices, and acts of worship, to their deities or demons, according to the different notions of each sect, and sometimes even proceed to offer human victims; but in this case they only take some of the vilest and most abandoned fellows they can meet with, because they are only sacrificed to the malevolent deities.

Japan. The religion throughout Japan, it is well known, is Pagan, split into several sects, who live together in the greatest harmony. Every sect has its own temples and priests. The spiritual emperor, the Dairo, is the chief of their religion. They acknowledge and honour a Supreme Being. The author of this relation (Dr Thunberg) saw two temples of the God of gods of a majestic height. The idol that represented this god was of gilded wood, and of so prodigious a size, that upon his hands six persons might sit in the Japanese fashion; his shoulders were five toises broad. In the other temple, the infinite power of this god was represented by little gods to the number of 33,333, all standing round the great idol that represented God. The priests, who are numerous in every temple, have nothing to do but to clean the pavement, light the lamps, and dress the idol with flowers. The temples are open to every body, even to the Hollanders; and in case they are in want of a lodging in the suburbs, when they go to the court of Jeddo, they are entertained with hospitality in these temples.

The Roman Catholic religion had once made a considerable progress in this country, in consequence of a mission conducted by the Portuguese and Spanish Jesuits; among whom the famous Saint Francis Xavier was employed, but soon relinquished the service. There were also some Franciscan friars of Spain engaged at last. The Jesuits and friars were supplied from Goa, Macao, and the Manilhas. At first the undertaking proceeded with the most rapid success, but ended at last in the most tragical manner, all owing to the pride and haughtiness, the misconduct, rapacity, and senseless extravagant conspiracy of the fathers against the state. This folly and madness produced a persecution of 40 years duration, terminated by a most horrible and bloody massacre, not to be paralleled in history. After this the Portuguese, as likewise the Christian religion, were totally expelled the country, and the most effectual means taken for preventing their return. The natives are for this purpose prohibited from going out of the country; and all foreigners are excluded from an open and free trade; for as to the Dutch, and Chinese, under which last name some other eastern nations go thither, they are shut up whilst they remain there, and a most strict watch is set upon them, insomuch that they are no better than prisoners; and the Dutch, it is said, to obtain a privilege even so far, declared themselves *to be no Christians, but Dutchmen*. This calumny, however, Dr Kempfer has endeavoured to wipe off, but not altogether to satisfaction.

It was about the year of Christ 1549, or six years after the first discovery, that the fathers of the society arrived there, being induced by the favourable representations of a young Japanese who had fled to Goa. Till the year 1625, or near 1630, the Christian religion spread through most of the provinces of the empire, many of the princes and lords openly embracing it; and "there was very good reason to hope, that within a short compass of time the whole empire would have been converted to the faith of our Saviour, had not the ambitious views, and the impatient endeavours of the fathers to reap the temporal as well as the spiritual fruits of their care and labour, so provoked the supreme majesty of the empire as to raise against themselves and their converts a persecution which hath not its parallel in history, whereby the religion they preached, and all those that professed it, were in a few years time entirely exterminated."—The fathers had made a progress so great, that the princes of Bungu, Arima, and Omura, who had been baptized, "sent, in the year 1582, some of their nearest relations, with letters and presents to pay homage to the then pope, Gregory XIII. and to assure his holiness of their filial submission to the church; an account of which most celebrated embassy hath been given in the works of that incomparable historian Thuanus, and by many other Roman Catholic writers." Japan.

But notwithstanding this pleasing prospect, the emperor, anno 1586, issued proclamations for the suppression of the religion, and the persecution began. This, however, at first had not that effect which the government expected; for though, according to the letters of the Jesuits, 20,570 persons suffered death for the faith of Christ in the year 1590 only, yet in 1591 and 1592, when all the churches were actually shut up, they made 12,000 new converts. The business was finally concluded by the massacre at Simabara, about the year 1640. The reasons of the emperor's proclamations, making it death to embrace the religion, were as follow: 1. The new religion occasioned considerable alterations in the Japanese church, and was prejudicial in the highest degree to the heathen clergy. 2. It was feared the innovation in religion might be attended with fatal consequences even in regard to the state; but what more immediately gave rise to them was, as the Japanese of credit confessed to Dr Kempfer, pride and covetousness; pride among the great ones, and covetousnesss in people of less note; the spiritual fathers aiming not only at the salvation of their souls, but having an eye also to their money and lands, and the merchants disposing of their goods in the most usurious and unreasonable manner. To confine ourselves to the clergy here: they "thought it beneath their dignity to walk on foot any longer; nothing would serve them but they must be carried about in stately chairs, mimicking the pomp of the pope and his cardinals at Rome. They not only put themselves on an equal footing with the greatest men of the empire, but, swelled with ecclesiastical pride, fancied that even a superior rank was nothing but their due. It one day happened, that a Portuguese bishop met upon the road one of the counsellors of state on his way to court. The haughty prelate would not order his chaise to be stopped, in order to alight and to pay his respects to the great man, as is usual in that country; but without taking any notice of him, nay, indeed without showing him so much as common marks of civility, he very contemptuously bid his men carry him by. The great man, exasperated at so signal an affront, thenceforward bore a mortal hatred to the Portuguese, and, in the height of his just resentment, made his complaint to the emperor himself, with such an odious picture of the insolence, pride, and vanity of this nation, as he expected could not but raise the emperor's utmost indignation." This happened in 1566. The next year the persecution began anew, and 26 persons, of the number whereof were two foreign Jesuits, and several other fathers of the Franciscan order, were executed on the cross. The emperor Jiojas had usurped the crown on his pupil Tidajori, who, as likewise the greater part of his court and party, had been either Christians themselves,

Japan. selves, or at least very favourably inclined to that religion; so that reasons of state mightily co-operated to forward the persecution.

Some Franciscan friars, whom the governor of the Manilhas had sent as his ambassadors to the emperor of Japan, were guilty at this time of a most imprudent step: they, during the whole time of their abode in the country, preached openly in the street of Meaco where they resided; and of their own accord built a church, contrary to the imperial commands, and contrary to the advice and earnest solicitations of the Jesuits.

Some time after, a discovery of a dangerous conspiracy, which the fathers, and the yet remaining adherents of their religion, entered into against the person of the emperor as a heathen prince, put a finishing stroke to the affair, and hastened the sentence which was pronounced soon after, *that the Portuguese should for ever be banished the emperor's dominions*; for till then the state seemed desirous to spare the merchants and secular persons, for the purpose of continuing trade and commerce with them, which was looked upon as an affair independent of religion. The affair of the conspiracy was as follows: the Dutch had had an eye to the trade of Japan before 1600, and in 1611 had liberty of a free commerce granted them by the imperial letters patent, and had actually a factory at Firando. The Dutch were then at war with Spain, which was then sovereign of the Portuguese dominions; so that it was natural for them to be trying to supplant them. The Portuguese, on their parts, made use of all malicious inventions to blacken their characters, calling them rebels and pirates, whence it was natural for the Dutch to endeavour to clear, and even to revenge themselves. Now they "took an homeward-bound Portuguese ship near the Cape of Good Hope, on board of which they found some traitorous letters to the king of Portugal, written by one Captain Moro, who was chief of the Portuguese in Japan, himself a Japanese by birth, and a great zealot for the Christian religion. The Dutch took special care to deliver the said letters to their protector the prince of Firando, who communicated them without loss of time to the governor of Nagasaki, a great friend to the Portuguese. Captain Moro having been taken up, boldly, and with great assurance, denied the fact, and so did all the Portuguese then at Nagasaki. However, neither the governor's favour, nor their constant denial, were able to clear them, and to keep off the cloud which was ready to break over their heads. Hand and seal convicted them; the letter was sent up to court, and Captain Moro sentenced to be burnt alive on a pale, which was executed accordingly. This letter laid open the whole plot which the Japanese Christians, in conjunction with the Portuguese, had laid against the emperor's life and throne; the want they stood in of ships and soldiers, which were promised them from Portugal; the names of the Japanese princes concerned in the conspiracy; and lastly, to crown all, the expectation of the papal blessing. This discovery made by the Dutch was afterwards confirmed by another letter written by the said Captain Moro to the Portuguese government at Macan, which was intercepted and brought to Japan by a Japanese ship."

Considering this, and the suspicions which the court had then already conceived against the Portuguese, it was no difficult matter thoroughly to ruin the little credit and favour they had as yet been able to preserve; Japan. and the rather, since the strict imperial orders notwithstanding, they did not leave off privately to bring over more ecclesiastics. Accordingly, in the year 1637, an imperial proclamation was sent to the governors of Nagasaki, with orders to see it put in execution. It was then that the empire of Japan was shut for ever both to foreigners and natives.

Now, although the governors of Nagasaki, on receipt of these commands, took care they should be obeyed, yet the directors of the Portuguese trade maintained themselves in Japan two years longer, hoping to obtain leave to stay in the island of Desima, and there to continue their trade. But they found themselves at last wholly disappointed; for the emperor was resolved to get rid of them; and on assurance given him by the Duch East India company that they would supply for the future what commodities had been imported by the Portuguese, he declared the Portuguese and the Castilians, and whoever belonged to them, enemies of the empire, forbidding the importation of even the goods of their country, Spanish wines only excepted, for the use of the court. And thus the Portuguese lost their profitable trade and commerce with Japan, and were totally expelled the country before the latter end of the year 1639 or 1640: and thus ended the fruitless popish mission in this empire, for the Portuguese have never been able to restore themselves; and the Dutch have it not in their power to do any one thing in favour of religion, were they so inclined; but, as it appears, they are very indifferent as to that, and are in but little credit with the Japanese.

According to Dr Thunberg's researches, the Japanese have never been subdued by any foreign power, not even in the most remote periods; their chronicles contain such accounts of their valour, as one would rather incline to consider as fabulous inventions than actual occurrences, if later ages had not furnished equally striking proofs of it. When the Tartars, for the first time in 790, had overrun part of Japan, and when, after a considerable time had elapsed, their fleet was destroyed by a violent storm in the course of a single night, the Japanese general attacked, and so totally defeated his numerous and brave enemies, that not a single person survived to return and carry the tidings of such an unparalleled defeat. In like manner, when the Japanese were again, in 1281, invaded by the warlike Tartars, to the number of 240,000 fighting them, they gained a victory equally complete. The extirpation of the Portuguese, and with them of the Christian religion, towards the beginning of the 17th century, as already mentioned, was so complete, that scarce a vestige can now be discerned of its ever having existed there.

With respect to the government of these islands, it is and has been for a long time monarchical; though formerly it seems to have been split into a great number of petty kingdoms, which were at length all swallowed by one. The imperial dignity had been enjoyed for a considerable time before the year 1500, by a regular succession of princes, under the title of *dairos*, a name supposed to have been derived from Dairo, the head of that family. Soon after that epoch, such a dreadful civil war broke out, and lasted so many years, that the empire was quite ruined. During these distractions and confusions, a common sol-

Japan. dier, by name Tayckoy, a person of obscure birth, but of an enterprising genius, found means to raise himself to the imperial dignity; having, in little more than three years time, by an uncommon share of good fortune, subdued all his competitors and opponents, and reduced all their cities and castles. The dairo not being in a condition to obstruct or put a stop to his progress, was forced to submit to his terms; and might perhaps have been condemned to much harder, had not Tayckoy been apprehensive lest his soldiers, who still revered their ancient natural monarch, should have revolted in his favour. To prevent this, he granted him the supreme power in all religious matters, with great privileges, honours, and revenues annexed to it; whilst himself remained invested with the whole civil and military power, and was acknowledged and proclaimed king of Japan. This great revolution happened in 1517, and Tayckoy reigned several years with great wisdom and tranquillity; during which he made many wholesome laws and regulations, which still subsist, and are much admired to this day. At his death, he left the crown to his son Tayckossama, then a minor; but the treacherous prince under whose guardianship he was left deprived him of his life before he came of age. By this murder, the crown passed to the family of Jejassama, in which it still continues. Tayckoy and his successors have contented themselves with the title of *cubo*, which, under the dairos, was that of prime minister, whose office is now suppressed; so that the cubo, in all secular concerns, is quite as absolute and despotic, and has as extensive a power over the lives and fortunes of all his subjects, from the petty kings down to the lowest persons, as ever the dairos had. The dairo resides constantly at Meaco, and the cubo at Jeddo.

The inhabitants of Japan are well-grown, agile, and active, and at the same time stout-limbed, though they do not equal in strength the northern inhabitants of Europe. The colour of the face is commonly yellow; which sometimes varies to brown, and sometimes to white. The inferior sort, who during their work in summer have often the upper parts of the body naked, are sun-burnt and browner; women of distinction, who never go uncovered into the open air, are perfectly white.

The national character consists in intelligence and prudence, frankness, obedience, and politeness, good-nature and civility, curiosity, industry, and dexterity, economy and sobriety, hardiness, cleanliness, justice and uprightness, honesty and fidelity; in being also mistrustful, superstitious, haughty, resentful, brave and invincible.

In all its transactions, the nation shows great intelligence, and can by no means be numbered among the savage and uncivilized, but rather is to be placed among the polished. The present mode of government, admirable skill in agriculture, sparing mode of life, way of trading with foreigners, manufactures, &c. afford convincing proofs of their cunning, firmness, and intrepid courage. Here there are no appearances of that vanity so common among the Asiatics and Africans, of adorning themselves with shells, glass-beads, and polished metal plates: neither are they fond of the useless European ornaments of gold and silver lace, jewels, &c. but are careful to provide themselves, from the productions of their own country, with neat clothes, well-tasted food, and good weapons. Japan.

Their curiosity is excessive; nothing imported by the Europeans escapes it. They ask for information concerning every article, and their questions continue till they become wearisome. It is the physician, among the traders, that is alone regarded as learned, and particularly during the journey to court and the residence at Jeddo, the capital of the empire, that he is regarded as the oracle, which they trust can give responses in all things, whether in mathematics, geography, physics, chemistry, pharmacy, zoology, botany, medicine, &c.

Economy has its peculiar abode in Japan. It is a virtue admired as well in the emperor's palace as in the meanest cottage. It makes those of small possessions content with their little, and it prevents the abundance of the rich from overflowing in excess and voluptuousness. Hence it happens, that what in other countries is called scarcity and famine, is unknown here; and that, in so very populous a state, scarce a person in necessity, or a beggar, should be found.

The names of families, and of single persons, are under very different regulations from ours. The family name is never changed, but is never used in ordinary conversation, and only when they sign some writing; to which they also for the most part affix their seal. There is also this peculiarity, that the surname is always placed first; just as in botanical books the generic name is always placed before the specific name. The prænomen is always used in addressing a person; and it is changed several times in the course of life. A child receives at birth from its parents a name, which is retained till it has itself a son arrived at maturity. A person again changes his name when he is invested with any office; as also when he is advanced to a higher trust: some, as emperors and princes, acquire a new name after death. The names of women are less variable; they are in general borrowed from the most beautiful flowers.

After marriage, the wife is confined to her own apartment, from whence she hardly ever stirs, except once a-year to the funeral-rites of her family; nor is she permitted to see any man, except perhaps some very near relation, and that as seldom as can be. The wives, as well as in China and other parts of the east, bring no portion with them, but are rather bought by the husband of their parents and relations. The bride-groom most commonly sees his bride for the first time upon her being brought to his house from the place of the nuptial ceremony: for in the temple where it is performed she is covered over with a veil, which reaches from the head to the feet. A husband can put his wives to a more or less severe death, if they give him the least cause of jealousy, by being seen barely to converse with another man, or suffering one to come into their apartment.

The dress of the Japanese deserves, more than that of any other people, the name of national; since they are not only different from that of all other men, but are also of the same form in all ranks, from the monarch to his meanest subject, as well as in both sexes; and what exceeds all credibility, they are said not to have been altered for at least 2444 years. They universally consist of night-gowns, made long and wide, of which several

Japan. veral are worn at once by all ranks and all ages. The more distinguished and the rich have them of the finest silk; the poorer sort of cotton. Those of the women reach down to the ground, and sometimes have a train; in the men, they reach down to the heels: travellers, soldiers, and labourers, either tuck them up, or wear them only down to the knees. The habit of the men is generally of one colour: the women have theirs variegated, and frequently with flowers of gold interwoven. In summer, they are either without lining, or have but a thin one; in winter they are stuffed to a great thickness with cotton or silk. The men seldom wear a great number; but the women thirty, fifty, or more, all so thin, that they scarce together amount to five pounds. The undermost serves for a shirt, and is therefore either white or blue, and for the most part thin and transparent. All these gowns are fastened round the waist with a belt, which in the men are about a hand's-breadth, in the women about a foot; of such a length that they go twice round the waist, and afterwards are tied in a knot with many ends and bows. The knot, particularly among the fair sex, is very conspicuous, and immediately informs the spectator whether they are married or not. The unmarried have it behind, on their back; the married before. In this belt the men fix their sabres, fans, pipe, tobacco, and medicine boxes. In the neck the gowns are always cut round, without a collar; they therefore leave the neck bare; nor is it covered with cravat, cloth, or any thing else. The sleeves are always ill made, and out of all proportion wide: at the opening before, they are half sewed up, so that they form a sack, in which the hands can be put in cold weather; they also serve for a pocket. Girls in particular have their sleeves so long that they reach down to the ground. Such is the simplicity of their habit, that they are soon dressed; and to undress, they need only open their girdle and draw in their arms.

As the gowns, from their length, keep the thighs and legs warm, there is no occasion for stockings; nor do they use them in all the empire. Among poorer persons on a journey, and among soldiers, who have not such long gowns, one sees buskins of cotton. Shoes, or, more properly speaking, slippers, are of all that is worn by the Japanese, the simplest, the meanest, and the most miserable, though in general use among high and low, rich and poor. They are made of interwoven rice-straw; and sometimes, for persons of distinction, of reeds split very thin. They consist only of a sole, without upper leathers or quarters. Before, there passes over, transversely, a bow of linen, of a finger's breadth: from the point of the shoe to this bow goes a thin round band, which running within the great toe, serves to keep the shoe fixed to the foot. The shoe being without quarters, slides, during walking, like a slipper. Travellers have three bands of twisted straw, by which they fasten the shoe to the foot and leg, to prevent its falling off. The Japanese never enter the houses with shoes, but put them off in the entrance. This precaution is taken for the sake of their neat carpets. During the time the Dutch reside in Japan, as they have sometimes occasion to pay the natives visits in their houses, and as they have their own apartment at the factory covered with the same sort of carpets, they do not wear European shoes, but have in their stead red, green, or black slippers, which can easily be put off at entering in. They, however, wear stockings, with shoes of cottoo, fastened by buckles. These shoes are made in Japan, and may be washed whenever they become dirty. Japan.

The way of dressing the hair is not less peculiar to this people, and less universally prevalent among them, than the use of their long gowns. The men shave the head from the forehead to the neck; and the hair remaining on the temples, and in the nape, is well besmeared with oil, turned upwards, and then tied with a white paper thread, which is wrapped round several times. The ends of the hair beyond the head, are cut cross-ways, about a finger's length being left. This part, after being pasted together with oil, is bent in such a manner that the point is brought to the crown of the head; in which situation it is fixed by passing the same thread round it once. Women, except such as happen to be separated from their husbands, shave no part of their head.

The head is never covered with hat or bonnet in winter or in summer, except when they are on a journey; and then they use a conical hat, made of a sort of grass, and fixed with a ribband. Some travelling women, who are met with on the roads, have a bonnet like a shaving bason inverted on the head, which is made of cloth, in which gold is interwoven. On other occasions, their naked heads are preserved, both from rain and the sun, by umbrellas. Travellers, moreover, have a sort of riding-coat, made of thick paper oiled. They are worn by the upper servants of princes, and the suite of other travellers. Dr Thunberg and his fellow-travellers, during their journey to court, were obliged to provide such for their attendants when they passed through the place where they are made.

A Japanese always has his arms painted on one or more of his garments, especially on the long and short gowns, on the sleeves, or between the shoulders; so that nobody can steal them; which otherwise might easily happen in a country where the clothes are so much alike in stuff, shape, and size.

The weapons of the Japanese consist of a bow and arrows, sabre, halbert, and musket. The bows are very large, and the arrows long, as in China. When the bows are to be bent and discharged, the troop always rests on one knee, which hinders them making a speedy discharge. In the spring the troops assemble to practise shooting at a mark. Muskets are not general; Dr Thunberg only saw them in the hands of persons of distinction, in a separated and elevated part of the audience room. The barrel is of the common length; but the stock is very short, and there is a match in the lock. The sabre is their principal and best weapon, which is universally worn, except by the peasants. They are commonly a yard long, a little crooked, and thick in the back. The blades are of an incomparable goodness, and the old ones are in very high esteem. They are far superior to the Spanish blades so celebrated in Europe. A tolerably thick nail is easily cut in two without any damage to the edge; and a man, according to the account of the Japanese, may be cleft asunder. A separate sash is never used, but the sword is stuck in the belt, on the left side, with the edge upwards, which to a European appears ridiculous. All persons in office wear two such sabres, one of their own,

and

Japan. and the other the *sword of office*, as it is called; the latter is always the longer. Both are worn in the belt on the same side, and so disposed as to cross each other. When they are sitting, they have their sword of office laid on one side or before them.

The sciences are very far from having arrived at the same height in Japan as in Europe. The history of the country is, notwithstanding, more authentic, perhaps, than that of any other country; and it is studied, without distinction, by all. Agriculture, which is considered as the art most necessary, and most conducive to the support and prosperity of the kingdom, is nowhere in the world brought to such perfection as here; where neither civil nor foreign war, nor emigration, diminishes population; and where a thought is never entertained, either of getting possession of other countries, or to import the useless and often hurtful productions of foreign lands; but where the utmost care is taken that no turf lies uncultivated, and no produce of the earth unemployed. Astronomy is pursued and respected; but the natives are unable, without the aid of Chinese, and sometimes of Dutch almanacks, to form a true kalendar, or calculate an eclipse of the sun or moon within minutes and seconds. Medicine has neither arrived, nor is it likely to arrive, at any degree of perfection. Anatomy is totally unknown; the knowledge of diseases imperfect, intricate, and often fabulous. Botany, and the knowledge of medicines, constitute the whole of their skill. They use only simples; and these generally in diuretic and diaphoretic decoctions. They are unacquainted with compound medicines. Their physicians always indeed feel the pulse; but they are very tedious, not quitting it for a quarter of an hour; besides, they examine first one, and then the other arm, as if the blood was not driven by the same heart to both pulses. Besides those diseases which they have in common with other countries, or peculiar to themselves, the venereal disease is very frequent, which they only understood how to alleviate by decoctions, thought to purify the blood. Salivation, which their physicians have heard mentioned by the Dutch surgeons, appears to them extremely formidable, both to conduct and to undergo; but they have lately learned the art of employing the sublimate with much success.—Jurisprudence is not an extensive study in Japan. No country has thinner law-books, or fewer judges. Explanations of the law, and advocates, are things altogether unknown; but nowhere, perhaps, are the laws more certainly put in force, without respect to persons, without partiality or violence. They are very strict, and lawsuits very short. The Japanese know little more of physic or chemistry than what they have learned of late years of the Europeans.

Their computation of time takes its rise from *Min-o*, or 660 years before Christ. The year is divided according to the changes of the moon; so that some years consist of twelve, and others of thirteen, months; and the beginning of the year falls out in February or March. They have no weeks consisting of seven days, or of six working days, and a holiday; but the first and fifteenth days of the month serve for holidays. On these days no work is done. On new-year's-day they go round to wish one another a good new-year, with their whole families, clad in white and blue chequered, their holiday-dress; and they rest almost the whole of the first month. The day is divided only into twelve hours; and in this division they are directed the whole year by the rising and setting of the sun. They reckon six o'clock at the rising, and six likewise at the setting of the sun. Mid-day and mid-night are always at nine. Time is not measured by clocks or hour-glasses, but with burning matches, which are twisted together like ropes, and divided by knots. When the match is burnt to a knot, which indicates a certain portion of time elapsed, notice is given during the day, by striking the bells of the temples; and in the night, by the watchmen striking two boards against one another. A child is always reckoned a year old at the end of the year of his birth, whether this happen at the beginning or the close. A few days after the beginning of the year, is performed the horrid ceremony of trampling on images representing the cross and the Virgin Mary with her child. The images are of melted copper, and are said to be scarce a foot in height. This ceremony is intended to impress every individual with hatred of the Christian doctrine, and the Portuguese, who attempted to introduce it there; and also to discover whether there is any remnant of it left among the Japanese. It is performed in the places where the Christians chiefly resided. In Nagasaki it lasts four days; then the images are conveyed to the circumjacent places, and afterwards are laid aside against the next year. Every person, except the Japanese governor and his attendants, even the smallest child, must be present; but it is not true, as some have pretended, that the Dutch are also obliged to trample on the image. Overseers are appointed in every place, who assemble the people in companies in certain houses, call over the name of every one in his turn, and take care that every thing goes on properly. The children, not yet able to walk, have their feet placed upon it; older persons pass over it from one side of the room to the other.

Japan.

The Japanese are much addicted to poetry, music, and painting: the first is said to be grand as to the style and imagery, loftiness, and cadence; but, like that of the Chinese, is not easily understood or relished by the Europeans. The same may be said of their music, both vocal and instrumental.

They pretend, like the Chinese, to have been the inventors of printing from time immemorial, and their method is the same with theirs on wooden blocks; but they excel them in the neatness of cutting them, as well as in the goodness of their ink and paper. Golownin found translations of some European works, among which was a geographical description of the Russian empire. They likewise lay claim to the invention of gunpowder; and are vastly superior to the Chinese in the use of all sorts of fire-arms, especially of artillery, as well as the curiousness of their fire-works.

Their manner of writing is much the same as that of the Chinese, viz. in columns from top to bottom, and the columns beginning at the right and ending at the left hand. Their characters were also originally the same, but now differ considerably.

Their language hath some affinity with the Chinese, though it appears from its various dialects to have been a kind of compound of that and other languages, derived from the various nations that first peopled those islands. It is not only very regular, polite, elegant, and copious, but abounds with a great variety of synonyma,

Japan. nonyma, adapted to the nature of the subject they are upon, whether sublime, familiar, or low; and to the quality, age, and sex, both of the speaker and person spoken to.

The Japanese are commonly very ingenious in most handicraft trades; and excel even the Chinese in several manufactures, particularly in the beauty, goodness, and variety of their silks, cottons, and other stuffs, and in their Japan and porcelain wares. No eastern nation comes up to them in the tempering and fabricating of scimitars, swords, muskets, and other such weapons.

The Japanese architecture is in much the same taste and style as that of the Chinese, especially as to their temples, palaces, and other public buildings; but in private ones they affect more plainness and neatness than show. These last are of wood and cement, consisting of two stories: they dwell only in the lower; the upper chamber serving for wardrobes. The roofs are covered with rush-mats three or four inches thick. In every house there is a small court, ornamented with trees, shrubs, and flower-pots; as likewise with a place for bathing. Chimneys are unknown in this country, although fire is needed from the cold month of October till the end of March. They heat their rooms with charcoal contained in a copper stove, which they sit round. Their cities are generally spacious, having each a prince or governor residing in them. The capital of Jeddo is 21 French leagues in circumference. Its streets are straight and large. There are gates at little distances, with an extremely high ladder, which they ascend to discover fires. Villages differ from cities in having but one street; which often extends several leagues. Some of them are situated so near each other that they are only separated by a river or a bridge. The principal furniture of the Japanese consists in straw-mats, which serve them for seats and beds; a small table for every one who chooses to eat is the only moveable. The Japanese sit always upon their hams. Before dinner begins, they make a profound bow and drink to the health of the guests. The women eat by themselves. During the courses, they drink a glass of sakki, which is a kind of beer made of rice kept constantly warm; and they drink at each new morsel. Tea and sakki are the most favourite drink of this people; wine and spirits are never used, nor even accepted when offered by the Dutch. Sakki, or rice beer, is clear as wine, and of an agreeable taste: taken in quantity, it intoxicates for a few moments, and causes headach. Both men and women are fond of tobacco, which is in universal vogue and smoked continually. The gardens about their houses are adorned with a variety of flowers, trees, verdure, baths, terraces, and other embellishments. The furniture and decorations of the houses of persons of distinction consist in japan-work of various colours, curious paintings, beds, couches, skreens, cabinets, tables, a variety of porcelain jars, vases, tea-equipage, and other vessels and figures, together with swords, guns, scimitars, and other arms. Their retinues are more or less numerous and splendid according to their rank; but there are few of the lords who have less than 50 or 60 men richly clad and armed, some on foot, but most on horseback. As for their petty kings and princes, they are seldom seen without 300 or 200 at least, when they either wait on the emperor, which is one-half of the year or attend him abroad. Japan.

When a prince or great man dies, there are commonly about 10, 20, or more youths of his household, and such as were his greatest favourites, who put themselves to a voluntary death, at the place where the body is buried or burned: as soon as the funeral pile, consisting of odoriferous woods, gums, spices, oils, and other ingredients, it set on fire, the relations and friends of the deceased throw their presents into it, such as clothes, arms, victuals, money, sweet herbs, flowers, and other things which they imagine will be of use to him in the other world. Those of the middle or lower rank commonly bury their dead, without any other burning than that of some odoriferous woods, gums, &c. The sepulchres in which the bones and ashes of persons of rank are deposited, are generally very magnificent, and situated at some distance from the towns.

The Dutch and Chinese are the only nations allowed to traffic in Japan. The Dutch at present send but two ships annually, which are fitted out at Batavia, and sail in June, and return at the end of the year. The chief merchandise is Japanese copper and raw camphor. The wares which the Dutch company import are, coarse sugar, ivory, a great quantity of tin and lead, a little cast iron, various kind of fine chintzes, Dutch cloth of different colours and fineness, serge wood for dyeing, tortoise-shell, and *costus Arabicus*. The little merchandise brought by the officers on their own account, consists of saffron, theriaca, sealing-wax, glass-beads, watches, &c. &c. About the time when the Dutch ships are expected, several outposts are stationed on the highest hills by the government; they are provided with telescopes, and long before their arrival give the governor of Nagasaki notice. As soon as they anchor in the harbour, the upper and under officers of the Japanese immediately betake themselves on board, together with interpreters; to whom is delivered a chest, in which all the sailors books, the muster-roll of the whole crew, six small barrels of powder, six barrels of balls, six muskets, six bayonets, six pistols, and six swords are deposited; this is supposed to be the whole remaining ammunition after the imperial garrison has been saluted. These things are conveyed on shore, and preserved in a separate warehouse, nor are they returned before the day the ship quits the harbour.

Duties are quite unknown as well in the inland part as on the coast, nor are there any customs required either for exported or imported goods; an advantage enjoyed by few nations. But, to prevent the importation of any forbidden wares, the utmost vigilance is observed; then the men and things are examined with the eyes of Argus. When any European goes on shore, he is examined before he leaves the ship, and afterwards on his landing. This double search is exceedingly strict; so that not only the pockets and clothes are stroaked with the hands, but the pudenda of the meaner sort are pressed, and the hair of the slaves. All the Japanese who come on board are searched in like manner, except only their superior officers: so also are the wares either exported or imported, first on board, and then at the factory, except the great chests, which are opened at the factory, and so carefully examined that they.

Japan, Japanning.

they strike the very sides lest they should be hollow. The bed-clothes are often opened, and the feathers examined: rods of iron are run into the pots of butter and confections: a square hole is made in the cheese, and a long pointed iron is thrust into it in all directions. Their suspicion is carried so far, that they take out and break one or two of the eggs brought from Batavia.

The interpreters are all natives; they speak Dutch in different degrees of purity. The government permits no foreigner to learn their language, lest they should by means of this acquire the knowledge of the manufactures of the country; but 40 or 50 interpreters are provided to serve the Dutch in their trade, or on any other occasion.

The interpreters are very inquisitive after European books, and generally provide themselves with some from the Dutch merchants. They peruse them with care, and remember what they learn. They besides endeavour to get instruction from the Europeans; for which purpose they ask numberless questions, particularly respecting medicine, physics, and natural history. Most of them apply to medicine, and are the only physicians of their nation who practice in the European manner, and with European medicines, which they procure from the Dutch physicians. Hence they are able to acquire money, and to make themselves respected.

Among the vegetable productions peculiar to Japan, we may take notice of the *aletris japonica*, *camellia japonica*, and the *volkameria japonica*. The trumpet-flower, or *bignonia catalpa* of Linnæus, is very common, bearing a resemblance to the *epidendrum vanilla*, the berries of which are said to constitute an article of commerce. Here also we find the *mimosa arborea*, and tallow tree, together with the plantain, cocoa-nut tree, the *chamærops excelsa*, and the *cyas circinalis*, adorning the woods near the sea shore.

It is a singular circumstance, that in the whole empire of Japan, neither sheep nor goats are to be met with, the goats being deemed pernicious to cultivation; and the vast quantities of silk and cotton with which it abounds, are considered as an excellent substitute for wool. There are few quadrupeds of any kind, either swine, horses, or cattle, as the Japanese live upon fish, poultry, and vegetables. Some wolves are seen in the northern provinces; and foxes are considered as demons incarnate.

Gold and silver abound in Japan, and copper richly impregnated with gold, which constitutes the chief wealth of many provinces. Iron is said to be scarcer than any other metal, which of consequence they are not fond of exporting. Amber, sulphur, pit-coal, red agate, asbestos, porcelain clay, pumice and white marble, are also found in considerable quantities; but, according to Kempfer, neither antimony nor mercury. As Europeans have seldom visited the interior parts of the country, the natural curiosities of Japan are but very little known.

Japan Earth. See Mimosa and Terra Japonica, Materia Medica *Index*.

JAPANNING, the art of varnishing and drawing figures on wood, in the same manner as is done by the natives of Japan in the East Indies.

The substances which admit of being japanned are almost every kind that are dry and rigid, or not too flexible; as wood, metals, leather, and paper prepared. Japanning.

Wood and metals do not require any other preparation, but to have their surface perfectly even and clean; but leather should be securely strained either on frames or on boards; as its bending or forming folds would otherwise crack and force off the coats of varnish: and paper should be treated in the same manner, and have a previous strong coat of some kind of size; but it is rarely made the subject of japanning till it is converted into *papier maché*, or wrought by other means into such form, that its original state, particularly with respect to flexibility, is lost.

One principal variation from the method formerly used in japanning is, the using or omitting any priming or undercoat on the work to be japanned. In the older practice, such priming was always used; and is at present retained in the French manner of japanning coaches and snuff-boxes of the *papier maché*; but in the Birmingham manufacture here, it has been always rejected. The advantage of using such priming or undercoat is, that it makes a saving in the quantity of varnish used; because the matter of which the priming is composed fills up the inequalities of the body to be varnished; and makes it easy, by means of rubbing and water-polishing, to gain an even surface for the varnish: and this was therefore such a convenience in the case of wood, as the giving a hardness and firmness to the ground was also in the case of leather, that it became an established method; and is therefore retained even in the instance of the *papier maché* by the French, who applied the received method of japanning to that kind of work on its introduction. There is nevertheless this inconvenience always attending the use of an undercoat of size, that the japan coats of varnish and colour will be constantly liable to be cracked and peeled off by any violence, and will not endure near so long as the bodies japanned in the same manner, but without any such priming; as may be easily observed in comparing the wear of the Paris and Birmingham snuff-boxes; which latter, when good of their kind, never peel or crack, or suffer any damage, unless by great violence, and such a continued rubbing as wastes away the substance of the varnish; while the japan coats of the Parisians crack and fly off in flakes, whenever any knock or fall, particularly near the edges, exposes them to be injured. But the Birmingham manufacturers, who originally practised the japanning only on metals, to which the reason above given for the use of priming did not extend, and who took up this art of themselves as an invention, of course omitted at first the use of any such undercoat; and not finding it more necessary in the instance of *papier maché* than on metals, continue still to reject it. On which account, the boxes of their manufacture are, with regard to wear, greatly better than the French.

The laying on the colour in gum-water, instead of varnish, is also another variation from the method of japanning formerly practised: but the much greater strength of the work, where they are laid on in varnish or oil, has occasioned this way to be exploded with the greatest reason in all regular manufactures: however, they who may practice japanning on cabinets, or other such pieces as are not exposed to much wear and violence,

Japanning. violence, for their amusement only, and consequently may not find it worth their while to encumber themselves with the preparations necessary for the other methods, may paint with water-colours on an undercoat laid on the wood or other substance of which the piece to be japanned is formed; and then finished with the proper coats of varnish, according to the methods below taught: and if the colours are tempered with the strongest isinglass size and honey, instead of gum-water, and laid on very flat and even, the work will not be much inferior in appearance to that done by the other method, and will last as long as the old japan.

Of JAPAN *Grounds.*—The proper grounds are either such as are formed by the varnish and colour, where the whole is to remain of one simple colour; or by the varnish either coloured or without colour, on which some painting or other decoration is afterwards to be laid. It is necessary, however, before we proceed to speak of the particular grounds, to show the manner of laying on the priming or undercoat, where any such is used.

This priming is of the same nature with that called *clear-coating*, or vulgarly *clear-coaling*, practised erroneously by the house-painters; and consists only in laying on and drying in the most even manner a composition of size and whiting, or sometimes lime instead of the latter. The common size has been generally used for this purpose: but where the work is of a nicer kind, it is better to employ the glovers or the parchment size; and if a third of isinglass be added, it will be still better, and if not laid on too thick, much less liable to peel and crack. The work should be prepared for this priming, by being well smoothed with the fish-skin or glass-shaver; and being made thoroughly clean, should be brushed over once or twice with hot size, diluted with two-thirds of water, if it be of the common strength. The priming should *Handmaid to the Arts.* then be laid on with a brush as even as possible; and should be formed of a size whose consistence is betwixt the common kind and glue, mixed with as much whiting as will give it a sufficient body of colour to hide the surface of whatever it is laid upon, but not more.

If the surface be very clean on which the priming is used, two coats of it laid on in this manner will be sufficient; but if, on trial with a fine wet rag, it will not receive a proper water-polish on account of any inequalities not sufficiently filled up and covered, two or more coats must be given it: and whether a greater or less number be used, the work should be smoothed after the last coat but one is dry, by rubbing it with the Dutch rushes. When the last coat is dry, the water polish should be given, by passing over every part of it with a fine rag gently moistened, till the whole appear perfectly plain and even. The priming will then be completed, and the work ready to receive the painting or coloured varnish; the rest of the proceedings being the same in this case as where no priming is used.

When wood or leather is to be japanned, and no priming is used, the best preparation is to lay two or three coats of coarse varnish composed in the following manner.

"Take of rectified spirit of wine one pint, and of coarse seed-lac and resin each two ounces. Dissolve the seed-lac and resin in the spirit; and then strain off the varnish." Japanning.

This varnish, as well as all others formed of spirit of wine, must be laid on in a warm place; and if it can be conveniently managed, the piece of work to be varnished should be made warm likewise: and for the same reason all dampness should be avoided; for either cold or moisture chills this kind of varnish, and prevents it taking proper hold of the substance on which it is laid.

When the work is so prepared, or by the priming with the composition of size and whiting above described, the proper japan ground must be laid on, which is much the best formed of shell-lac varnish, and the colour desired, if white be not in question, which demands a peculiar treatment, or great brightness be not required, when also other means must be pursued.

The colours used with the shell-lac varnish may be any pigments whatever which give the teint of the ground desired; and they may be mixed together to form browns or any compound colours.

As metals never require to be undercoated with whiting, they may be treated in the same manner as wood or leather, when the undercoat is omitted, except in the instances particularly spoken of below.

White JAPAN *Grounds.*—The forming a ground perfectly white, and of the first degree of hardness, remains hitherto a desideratum, or matter sought for, in the art of japanning, as there are no substances which form a very hard varnish but what have too much colour not to deprave the whiteness, when laid on of a due thickness over the work.

The nearest approach, however, to a perfect white varnish, already known, is made by the following composition.

"Take flake-white, or white lead, washed over and ground up with a sixth of its weight of starch, and then dried; and temper it properly for spreading with the mastich varnish prepared as under the article VARNISH.

"Lay these on the body to be japanned, prepared either with or without the undercoat of whiting, in the manner as above ordered; and then varnish it over with five or six coats of the following varnish:

"Provide any quantity of the best seed-lac; and pick out of it all the clearest and whitest grains, reserving the more coloured and fouler parts for the coarse varnishes, such as that used for priming or preparing wood or leather. Take of this picked seed-lac two ounces, and of gum-animi three ounces; and dissolve them, being previously reduced to a gross powder in about a quart of spirit of wine; and strain off the clear varnish."

The seed-lac will yet give a slight tinge to this composition; but cannot be omitted where the varnish is wanted to be hard; though, when a softer will answer the end, the proportion may be diminished, and a little crude turpentine added to the gum-animi to take off the brittleness.

A very good varnish, free entirely from all brittleness, may be formed by dissolving as much gum-animi as the oil will take, in old nut or poppy oil, which must be made to boil gently when the oil is put into it. The

Japanning. ground of white colour itself may be laid on in this varnish, and then a coat or two of it may be put over the ground; but it must be well diluted with oil of turpentine when it is used. This, though free from brittleness, is nevertheless liable to suffer by being indented or bruised by any slight strokes; and it will not well bear any polish, but may be brought to a very smooth surface without, if it be judiciously managed in the laying it on. It is likewise somewhat tedious in drying, and will require some time where several coats are laid on; as the last ought not to contain much oil of turpentine.

Blue Japan Grounds.—Blue japan grounds may be formed of bright Prussian blue, or of verditer glazed over by Prussian blue, or of smalt. The colour may be best mixed with shell-lac varnish, and brought to a polishing state by five or six coats of varnish of seed-lac: but the varnish, nevertheless, will somewhat injure the colour by giving to a true blue a cast of green, and fouling in some degree a warm blue by the yellow it contains: where therefore a bright blue is required, and a less degree of hardness can be dispensed with, the method before directed in the case of white grounds must be pursued.

Red Japan Grounds.—For a scarlet japan ground, vermilion may be used: but the vermilion has a glaring effect, that renders it much less beautiful than the crimson produced by glazing it over with carmine or fine lake; or even with rose pink, which has a very good effect used for this purpose. For a very bright crimson, nevertheless, instead of glazing with carmine, the Indian lake should be used, dissolved in the spirit of which the varnish is compounded, which it readily admits of when good: and in this case, instead of glazing with the shell-lac varnish, the upper or polishing coats need only be used; as they will equally receive and convey the tinge of the Indian lake, which may be actually dissolved by spirit of wine: and this will be found a much cheaper method than the using carmine. If, nevertheless, the highest degree of brightness be required, the white varnishes must be used.

Yellow Japan Grounds.—For bright yellow grounds, the king's yellow, or the turpeth mineral, should be employed, either alone or mixed with fine Dutch pink: and the effect may be still more heightened by dissolving powdered turmeric root in the spirit of wine of which the upper or polishing coat is made; which spirit of wine must be strained from off the dregs before the seed-lac be added to it to form the varnish.

The seed-lac varnish is not equally injurious here, and with greens, as in the case of other colours; because being only tinged with a reddish yellow, it is little more than an addition to the force of the colours.

Yellow grounds may be likewise formed nf the Dutch pink only; which, when good, will not be wanting in brightness, though extremely cheap.

Green Japan Grounds.—Green grounds may be produced by mixing the king's yellow, and bright Prussian blue, or rather the turpeth mineral and Prussian blue; and a cheap but fouler kind, by verdegris with a little of the above-mentioned yellows, or Dutch pink. But where a very bright green is wanted, the crystals of verdegris, called *distilled verdegris*, should be employed; and to heighten the effect, they should be laid on a ground of leaf-gold, which renders the colour extremely brilliant and pleasing. Japanning.

They may any of them be used successfully with good seed-lac varnish, for the reason before given; but will be still brighter with white varnish.

Orange-coloured Japan Grounds.—Orange-coloured japan grounds may be formed by mixing vermilion or red-lead with king's yellow, or Dutch pink; or the orange-lac, which will make a brighter orange ground than can be produced by any mixture.

Purple Japan Grounds.—Purple japan grounds may be produced by the mixture of lake and Prussian blue; or a fouler kind, by vermilion and Prussian blue. They may be treated as the rest with respect to the varnish.

Black Japan Grounds to be produced with Heat.—Black grounds may be formed by either ivory-black or lamp-black: but the former is preferable where it is perfectly good.

These may be always laid on with shell-lac varnish; and have their upper or polishing coats of common seed-lac varnish, as the tinge or fulness of the varnish can be here no injury.

Common Black Japan Grounds on Iron or Copper, produced by means of Heat.—For forming the common black japan grounds by means of heat, the piece of work to be japanned must be painted over with drying oil; and, when it is of a moderate dryness, must be put into a stove of such degree of heat as will change the oil to black, without burning it so as to destroy or weaken its tenacity. The stove should not be too hot when the work is put into it, nor the heat increased too fast; either of which errors would make it blister: but the slower the heat is augmented, and the longer it is continued, provided it be restrained within the due degree, the harder will be the coat of japan.—This kind of varnish requires no polish, having received, when properly managed, a sufficient one from the heat.

The fine Tortoise-shell Japan Ground produced by means of Heat.—The best kind of tortoise-shell ground produced by heat is not less valuable for its great hardness, and enduring to be made hotter than boiling water without damage, than for its beautiful appearance. It is to be made by means of a varnish prepared in the following manner:

"Take of good linseed oil one gallon, and of umbre half a pound: boil them together till the oil become very brown and thick: strain it then through a coarse cloth, and set it again to boil; in which state it must be continued till it acquire a pitchy consistence; when it will be fit for use."

Having prepared thus the varnish, clean well the iron or copper plate or other piece which is to be japanned; and then lay vermilion tempered with shell-lac varnish, or with drying oil diluted with oil of turpentine, very thinly, on the places intended to imitate the more transparent parts of the tortoise-shell. When the vermilion is dry, brush over the whole with the black varnish, tempered to a due consistence with oil of turpentine; and when it is set and firm, put the work into a stove, where it may undergo a very strong heat, and must be continued a considerable time; if even three weeks or a month, it will be the better.

This

Japanning. This was given amongst other receipts by Kunckel; but appears to have been neglected till it was revived with great success in the Birmingham manufactures, where it was not only the ground of snuff-boxes, dressing-boxes, and other such lesser pieces, but of those beautiful tea-waiters which have been so justly esteemed and admired in several parts of Europe where they have been sent. This ground may be decorated with painting and gilding, in the same manner as any other varnished surface, which had best be done after the ground has been duly hardened by the hot stove; but it is well to give a second annealing with a more gentle heat after it is finished.

Method of Painting JAPAN *Work.*—Japan work ought properly to be painted with colours in varnish, though, in order for the greater dispatch, and, in some very nice works in small, for the freer use of the pencil, the colours are sometimes tempered in oil; which should previously have a fourth part of its weight of gum animi dissolved in it; or, in default of that, of the gums sandarac or mastich. When the oil is thus used, it should be well diluted with spirit of turpentine, that the colours may be laid more evenly and thin; by which means, fewer of the polishing or upper coats of varnish become necessary.

In some instances, water-colours are laid on grounds of gold, in the manner of other paintings; and are best, when so used, in their proper appearance, without any varnish over them; and they are also sometimes so managed as to have the effect of embossed work. The colours employed in this way, for painting, are both prepared by means of isinglass size corrected with honey or sugarcandy. The body of which the embossed work is raised, need not, however, be tinged with the exterior colour; but may be best formed of very strong gum-water, thickened to a proper consistence by bole-armenian and whiting in equal parts; which being laid on the proper figure, and repaired when dry, may be then painted with the proper colours tempered in the isinglass size, or in the general manner with shell-lac varnish.

Manner of Varnishing JAPAN *Work.*—The last and finishing part of japanning lies in the laying on and polishing the outer coats of varnish; which are necessary, as well in the pieces that have only one simple ground of colour, as with those that are painted. This is in general best done with common seed-lac varnish, except in the instances and on those occasions where we have already shown other methods to be more expedient: and the same reasons which decide as to the fitness or impropriety of the varnishes, with respect to the colours of the ground, hold equally with regard to those of the painting: for where brightness is the most material point, and a tinge of yellow will injure it, seed-lac must give way to the whiter gums; but where hardness, and a greater tenacity, are most essential, it must be adhered to; and where both are so necessary, that it is proper one should give way to the other in a certain degree reciprocally, a mixed varnish must be adopted.

This mixed varnish, as we have already observed, should be made of the picked seed-lac. The common seed-lac varnish, which is the most useful preparation of the kind hitherto invented, may be thus made:

"Take of seed-lac three ounces, and put it into water to free it from the sticks and filth that are frequently intermixed with it; and which must be done by stirring it about, and then pouring off the water, and adding fresh quantities in order to repeat the operation, till it be freed from all impurities, as it very effectually may be by this means. Dry it then, and powder it grossly, and put it, with a pint of rectified spirit of wine, into a bottle, of which it will not fill above two-thirds. Shake the mixture well together; and place the bottle in a gentle heat, till the seed appear to be dissolved; the shaking being in the mean time repeated as often as may be convenient: and then pour off all that can be obtained clear by this method, and strain the remainder through a coarse cloth. The varnish thus prepared must be kept for use in a bottle well stopt." Japanning.

When the spirit of wine is very strong, it will dissolve a greater proportion of the seed-lac: but this will saturate the common, which is seldom of a strength sufficient for making varnishes in perfection. As the chilling, which is the most inconvenient accident attending those of this kind, is prevented, or produced more frequently, according to the strength of the spirit; we shall therefore take this opportunity of showing a method by which weaker rectified spirits may with great ease, at any time, be freed from the phlegm, and rendered of the first degree of strength.

"Take a pint of the common rectified spirit of wine, and put it into a bottle, of which it will not fill above three parts. Add to it half an ounce of pearl-ashes, salt of tartar, or any other alkaline salt, heated red hot, and powdered, as well as it can be without much loss of its heat. Shake the mixture frequently for the space of half an hour; before which time, a great part of the phlegm will be separated from the spirit, and will appear, together with the undissolved part of the salts, in the bottom of the bottle. Let the spirit then be poured off, or freed from the phlegm and salts, by means of a tritorium or separating funnel; and let half an ounce of the pearl-ashes, heated and powdered as before, be added to it, and the same treatment repeated. This may be done a third time, if the quantity of phlegm separated by the addition of the pearl-ashes appear considerable. An ounce of alum reduced to powder and made hot, but not burnt, must then be put into the spirit, and suffered to remain some hours; the bottle being frequently shaken: after which, the spirit, being poured off from it, will be fit for use."

The addition of the alum is necessary, to neutralize the remains of the alkaline salt or pearl-ashes; which would otherwise greatly deprave the spirit with respect to varnishes and laquer, where vegetable colours are concerned; and must consequently render another distillation necessary.

The manner of using the seed-lac or white varnishes is the same, except with regard to the substance used in polishing; which, where a pure white or great clearness of other colours is in question, should be itself white: whereas the browner sorts of polishing dust, as being cheaper, and doing their business with greater dispatch, may be used in other cases. The pieces of work to be varnished should be placed near a fire, or in a room where there is a stove, and made perfectly

Japanning, Japheth.

dry; and then the varnish may be rubbed over them by the proper brushes made for that purpose, beginning in the middle, and passing the brush to one end; and then with another stroke from the middle, passing it to the other. But no part should be crossed or twice passed over, in forming one coat, where it can possibly be avoided. When one coat is dry, another must be laid over it; and this must be continued at least five or six times, or more, if on trial there be not sufficient thickness of varnish to bear the polish, without laying bare the painting or the ground colour underneath.

When a sufficient number of coats is thus laid on, the work is fit to be polished: which must be done, in common cases, by rubbing it with a rag dipped in Tripoli or pumice-stone, commonly called *rotten stone*, finely powdered: but towards the end of the rubbing, a little oil of any kind should be used along with the powder; and when the work appears sufficiently bright and glossy, it should be well rubbed with the oil alone, to clean it from the powder, and give it a still brighter lustre.

In the case of white grounds, instead of the Tripoli or pumice-stone, fine putty or whiting must be used; both which should be washed over to prevent the danger of damaging the work from any sand or other gritty matter that may happen to be commixed with them.

It is a great improvement of all kinds of japan work, to harden the varnish by means of heat; which, in every degree that it can be applied, short of what would burn or calcine the matter, tends to give it a more firm and strong texture. Where metals form the body, therefore, a very hot stove may be used, and the pieces of work may be continued in it a considerable time; especially if the heat be gradually increased; but where wood is in question, heat must be sparingly used, as it would otherwise warp or shrink the body, so as to injure the general figure.

JAPHETH, the son of Noah. His descendants possessed all Europe and the isles in the Mediterranean, as well those which belong to Europe, as others which depend on Asia. They had all Asia Minor, and the northern parts of Asia above the sources of the Tigris and Euphrates. Noah, when he blessed Japheth, said to him, "God shall enlarge Japheth, and he shall dwell in the tents of Shem; and Canaan shall be his servant." This blessing of Noah was accomplished, when the Greeks, and after them the Romans, carried their conquests into Asia and Africa, which were the dwellings and dominions of Shem and Canaan.

The sons of Japheth were Gomer, Magog, Madai, Javan, Tubal, Meshech, and Tiras. The scripture says, "that they peopled the isles of the Gentiles, and settled in different countries, each according to his language, family, and people." It is supposed, that Gomer was the father of the Cimbri, or Cimmerians; Magog of the Scythians; Madai of the Macedonians or Medes; Javan of the Ionians and Greeks; Tubal of the Tibarenians; Meshech of the Muscovites or Russians; and Tiras of the Thracians. By the isles of the Gentiles, the Hebrews understand the isles of the Mediterranean, and all the countries separated by the sea from the continent of Palestine; whither also the Hebrews could go by sea only, as Spain, Gaul, Italy, Greece, Asia Minor.

Japheth ‖ Jarchi.

Japheth was known by profane authors under the name of Japetus. The poets make him the father of heaven and earth. The Greeks believe that he was the father of their race, and acknowledged nothing more ancient than him. Besides the seven sons of Japheth above mentioned, the Septuagint, Eusebius, the Alexandrian Chronicle, and St Austin, give him an eighth called *Eliza*, who is not mentioned either in the Hebrew or Chaldee, and the eastern people affirm that Japheth had eleven children.

JAPYDIA, in *Ancient Geography*, a western district of Illyricum, anciently threefold; the first *Japydia* extending from the springs of the Timavus to Istria; the second, from the river Arsia to the river Tedanins; and the third, called *Inalpina*, situated in Mount Albius and the other Alps, which run out above Istria. *Japodes*, or *Japydes*, the people, Now constituting the south part of Carniola, and the west of Austrian Croatia.

JAPYGIA, CALABRIA anciently so called by the Greeks. *Japyges*, the people.

JAPYGIUM, in *Ancient Geography*, a promontory of Calabria; called also *Salentinum*. Now *Capo di S. Maria di Leuca*.

JAQUELOT, ISAAC, a celebrated French Protestant divine, born in 1647, at Vassy in Champagne, where his father was minister. The revocation of the edict of Nantz obliging him to quit France, he took refuge first at Heidelberg, and then at the Hague, where he procured an appointment in the Walloon church. Here he continued till that capital was taken by the king of Prussia, who, hearing him preach, made him his French minister in ordinary at Berlin; to which city he removed in 1702. While he lived at Berlin, he entered into a warm controversy with M. Bayle on the doctrine advanced in his dictionary favouring manichæism, which continued until death imposed silence on both parties: and it was in this dispute that M. Jaquelot openly declared in favour of the Remonstrants. He wrote, among other works, 1. *Dissertations sur l'existence de Dieu.* 2. *Dissertations sur le Messie.* 3. *Lettres à Messieurs les Prelats de l'Eglise Gallicane.* He was employed in finishing an important work upon the divine authority of the holy scriptures, when he died suddenly in 1708, aged 61.

JAR, or JARR, an earthen pot or pitcher, with a big belly and two handles.—The word comes from the Spanish *jarra* or *jarro*, which signifies the same.

JAR is used for a sort of measure or fixed quantity of divers things.—The *jar* of oil is from 18 to 26 gallons; the *jar* of green ginger is about 100 pounds weight.

JARCHI, SOLOMON, otherwise *Raschi* and *Isaaki Solomon*, a famous rabbi, born at Troyes in Champagne, who flourished in the 12th century. He was a perfect master of the talmud and gemara; and he filled the postils of the bible with so many talmudical reveries, as totally extinguished both the literal and moral sense of it. A great part of his commentaries are printed in Hebrew, and some have been translated into

Jarchi ‖ Jarnac.

into Latin by the Christians. They are generally esteemed by the Jews, who have bestowed on the author the title of *prince of commentators*.

JARDYN, or JARDIN, KAREL DU, painter of conversations, landscapes, &c. was born at Amsterdam in 1640, and became a disciple of Nicholas Berchem. He travelled to Italy whilst he was yet a young man; and arriving at Rome, he gave himself alternately up to study and dissipation. Yet, amidst this irregularity of conduct, his proficiency in the art was surprising; and his paintings rose into such high repute, that they were exceedingly coveted in Rome, and bought up at great prices. With an intention to visit his native city he at last left Rome; but passing through Lyons, and meeting some agreeable companions, they prevailed on him to stay there for some time, and he found as much employment in that city as he could possibly undertake or execute. But the profits which arose from his paintings were not proportionable to his profusion; and in order to extricate himself from the encumbrances in which his extravagance had involved him, he was induced to marry his hostess, who was old and disagreeable, but very rich. Mortified and ashamed at that adventure, he returned as expeditiously as possible to Amsterdam, accompanied by his wife, and there for some time followed his profession with full as much success as he had met with in Italy or Lyons. He returned to Rome the second time; and after a year or two spent there in his usual extravagant manner, he settled at Venice. In that city his merit was well known before his arrival, which procured him a very honourable reception. He lived there highly caressed, and continually employed; but died at the age of 38. He was sumptuously interred, out of respect to his talents; and, although a Protestant, permitted to be laid in consecrated ground. This painter, in his colouring and touch, resembled his master Berchem; but he added to that manner a force which distinguishes the great masters of Italy; and it is observed, that most of his pictures seem to express the warmth of the sun, and the light of mid-day. His pictures are not much encumbered; a few figures, some animals, and a little landscape for the back-grounds, generally comprise the whole of his composition. However, some of his subjects are often more extensive, containing more objects, and a larger design. His works are as much sought after, as they are difficult to be met with.

JARGON, or ZIRCON, a kind of precious stone found in Ceylon. This mineral contains a peculiar earth, called *jargonia*, or *zirconia*; for an account of the properties of which, see CHEMISTRY, page 611; see also MINERALOGY *Index*.

JARGONIA, or ZIRCONIA, in *Chemistry*, a peculiar earth obtained from the preceding mineral. See CHEMISTRY, p. 611.

JARIMUTH, JARMUTH, or *Jerimoth*, Josh. xv. a town reckoned to the tribe of Judah, four miles from Eleutheropolis, westward, (Jerome). Thought to be the same with Ramoth and Remeth, Joshua xix. and Nehem. x. 2. (Reland).

JARNAC, a town of France, in Orleanois, and in Angumois, remarkable for a victory gained by Henry III. over the Huguenots in 1569. It is seated on the river Charente, in W. Long. 0. 13. N. Lat. 45. 40.

Jaroslow ‖ Java.

JAROSLOW, a handsome town of Poland, in the palatinate of Russia, with a strong citadel. It is remarkable for its great fair, its handsome buildings, and a battle gained by the Swedes in 1656, after which they took the town. It is seated on the river Saine, in E. Long. 22. 23. N. Lat. 49. 58.

JASHER, THE BOOK OF. This is a book which Joshua mentions, and refers to in the following passage: "And the sun stood still, and the moon stayed, until the people had avenged themselves upon their enemies: is not this written in the book of Jasher?"

It is difficult to determine what this *book of Jasher*, or "the upright," is. St Jerome and the Jews believed it to be Genesis, or some other book of the Pentateuch, wherein God foretold he would do wonderful things in favour of his people. Huetius supposes it was a book of morality, in which it was said that God would subvert the course of nature in favour of those who put their trust in him. Others pretend, it was public annals, or records, which were styled *justice* or *upright*, because they contained a faithful account of the history of the Israelites. Grotius believes, that this book was nothing else but a song, made to celebrate this miracle and this victory. This seems the more probable opinion, because the words cited by Joshua as taken from this work, "Sun, stand thou still upon Gibeon, and thou moon in the valley of Ajalon," are such poetical expressions as do not suit with historical memoirs; besides that in the 2d book of Samuel (i. 18.) mention is made of a book under the same title, on account of a song made on the death of Saul and Jonathan.

JASIONE, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 29th order, *Campanaceæ*. See BOTANY *Index*.

JASMINE. See JASMINUM.

Arabian JASMINE. See NYCTANTHES, BOTANY *Index*.

JASMINUM, JASMINE, or *Jessamine Tree*, a genus of plants belonging to the diandria class; and in the natural method ranking under the 44th order, *Sepiariæ*. See BOTANY *Index*.

JASON, the Greek hero who undertook the Argonautic expedition, the history of which is obscured by fabulous traditions, flourished about 937 B. C. See ARGONAUTS.

JASPACHATES. See JADE-STONE, MINERALOGY *Index*.

JASPER, a species of mineral belonging to the siliceous genus of stones, and of which there are many varieties, some of which being extremely beautiful, are much sought after, and employed as trinkets and ornaments. See MINERALOGY *Index*.

JASPONYX, an old term in mineralogy, importing, as appears from the name, a compound of jasper and onyx.

JATROPHA, the CASSADA PLANT, a genus of plants belonging to the monœcia class; and in the natural method ranking under the 38th order, *Tricoccæ*. See BOTANY *Index*.

JAVA, a large island of the East Indies, lying between 105° and 115° E. Long. and from 6° to 8° S. Lat. extending in length 700 miles, and in breadth about 100. It is situated to the south of Borneo, and south-east

Java. south-east from the peninsula of Malacca, having Sumatra lying before it, from which it is separated by a narrow passage, now so famous in the world by the name of the *Straits of Sunda*. The country is mountainous and woody in the middle; but a flat coast, full of bogs and marshes, renders the air unhealthful. It produces pepper, indigo, sugar, tobacco, rice, coffee, cocoa-nuts, plantains, cardamoms, and other tropical fruits. Gold also, but in no great quantities, hath been found in it. It is diversified by many mountains, woods, and rivers; in all which nature has very bountifully bestowed her treasure. Many of the mountains are so high as to be seen at the distance of a number of leagues. That which is called the *Blue Mountain* is by far the highest of them all, and seen the farthest off at sea. They have frequent and very terrible earthquakes in this island, which shake the city of Batavia and places adjacent, to such a degree, that the fall of the houses is expected every moment. The waters in the road are excessively agitated, insomuch that their motion resembles that of a boiling pot; and in some places the earth opens, which affords a strange and terrible spectacle. The inhabitants are of opinion, that these earthquakes proceed from the mountain Parang, which is full of sulphur, saltpetre, and bitumen. The fruits and plants of this island are in their several kinds excellent, and almost out of number. There are abundance of forests scattered over it, in which are all kinds of wild beasts, such as buffaloes, tygers, rhinoceroses, and wild horses, with an infinite variety of serpents, some of them of an enormous size. Crocodiles are prodigiously large in Java, and are found chiefly about the mouths of rivers; for, being amphibious animals, they delight mostly in marshes and savannahs. This creature, like the tortoise, lays its eggs in the hot sands, without taking any further care of them; the sun hatches them at the proper season, when the young run instantly into the water. There is, in short, no kind of animal wanting here: fowls they have of all sorts, and exquisitely good, especially peacocks, partridges, pheasants, wood-pigeons: and, for curiosity, they have the Indian bat, which differs little in form from ours; but its wings, when extended, measure a full yard, and the body of it is of the size of a rat. They have fish in great plenty, and very good; so that for the value of three-pence there may be enough bought to dine six or seven men. They have likewise a multitude of tortoises, the flesh of which is very little inferior to veal, and there are many who think it better.

Very extravagant ideas formerly prevailed respecting the number of inhabitants in Java. By a census taken in 1815, it was found to be 4,600,000. Of these, three millions are in the provinces directly subject to European authority; the rest are subject to the native princes. The principal European capitals, Batavia, Samarang, and Surabya, contain respectively 60,000, 25,000, and 20,000 inhabitants: the chief native capitals, Surakerta, and Yug Yukerta, about 105,000 each. The Chinese, amounting to 94,000, form the most active and industrious part of the population.

There are a great many princes in the island, of which the most considerable are, the emperor of Materan, and the kings of Bantam and Japara. Upon the first of these many of the petty princes are dependant; but the Dutch are absolute masters of the greatest part of the island, particularly of the north coast, though there are some of the princes beyond the mountains, on the south coast, who still maintain their independency. The natives of the country, who are established in the neighbourhood of Batavia, and for a tract of about 40 leagues along the mountains of the country of Bantam, are immediately subject to the governor-general. The company send drossards, or commissaries, among them, who administer justice and take care of the public revenues. Java.

The city of Batavia is the capital not only of this island but of all the Dutch dominions in India. It is an exceeding fine city, situated in the latitude of 6° south, at the month of the river Jucatra, and in the bosom of a large commodious bay, which may be considered not only as one of the safest harbours in India, but in the world. The city is surrounded by a rampart 21 feet thick, covered on the outside with stone, and fortified with 22 bastions. This rampart is environed by a ditch 45 yards over, and full of water, especially when the tides are high, in the spring. The avenues to the town are defended by several forts, each of which is well furnished with excellent brass cannon: no person is suffered to go beyond these forts without a passport. The river Jucatra passes through the midst of the town, and forms 15 canals of running water, all faced with free-stone, and adorned with trees that are ever green: over these canals are 56 bridges, besides those which lie without the town. The streets are all perfectly straight, and each, generally speaking, thirty feet broad. The houses are built of stone, after the manner of those in Holland. The city is about a league and a half in circumference, and has five gates; but there are ten times the number of houses without that there are within it. There is a very fine town-house, four Calvinist churches, besides other places of worship for all sorts of religions, a spin-huys or house of correction, an orphan-house, a magazine of sea stores, several for spices, with wharfs and cord manufactories, and many other public buildings. The garrison consists commonly of between 2000 and 3000 men. Besides the forts mentioned above, there is the citadel of Batavia, a very fine regular fortification, situated at the mouth of the river, and flanked with four bastions; two of which command the sea, and the other two the town. It is in the citadel that the governor-general of the Indies has his palace; over against which is that of the director-general, who is the next person to the governor. The counsellors, and other principal officers of the company, have also their apartments there; as have likewise the physician, the surgeon, and the apothecary. There are in it, besides, arsenals and magazines furnished with ammunition for many years. The city of Batavia is not only inhabited by Dutch, French, Portuguese, and other Europeans, established here on account of trade; but also by a vast number of Indians of different nations, Javanese, Chinese, Malayans, Negroes, Amboynese, Armenians, natives of the isle of Bali, Mardykers or Topasses, Macassers, Timors, Bougis, &c. Of the Chinese, near 30,000 resided

Java || Jay.

resided in the city till the year 1740, when the Dutch, pretending that they were in a plot against them, sent a body of troops into their quarter, and demanded their arms, which the Chinese readily delivered up; and the next day the governor sent another body, with orders to murder and massacre every one of the Chinese, men, women, and children. Some relate there were 20,000, others 30,000, that were put to death, without any manner of trial: and yet the barbarous governor, who was the instrument of this cruel proceeding, had the assurance to embark for Europe, imagining he had amassed wealth enough to secure him against any prosecution in Holland: but the Dutch, finding themselves detested and abhorred by all mankind for this piece of tyranny, endeavoured to throw the odium of it upon the governor, though he had the hands of all the council of Batavia, except one, to the order for the massacre. The states, therefore, dispatched a packet to the Cape of Good Hope, containing orders to apprehend the governor, and send him back to Batavia to be tried. He was accordingly apprehended at the Cape; but was never heard of afterwards. It is supposed he was thrown over-board in his passage to Batavia, that there might be no farther inquiries into the matter; and it is said, all the wealth this merciful gentleman had amassed, and sent over before him in four ships, was cast away in the passage.

As Holland after its annexation to France came into a state of hostility with Great Britain, a British force landed in the island in August 1811, and Batavia the capital was taken on the 10th August. The Dutch commander was afterwards pursued to the eastern extremity of the island, and compelled to capitulate. Under the government of Sir Stamford Raffles, many important improvements were made in the judicial system, the collection of the revenue, and the regulation of trade. Agreeably to the terms of the peace in 1815, this island was restored to the Dutch government in the following year. See JAVA, SUPPLEMENT.

JAVELIN, in antiquity, a sort of spear five feet and a half long; the shaft of which was of wood, with a steel point.—Every soldier in the Roman armies had seven of these, which were very light and slender.

JAWER, a city of Silesia, capital of a province of the same name, with a citadel, and a large square, surrounded with piazzas. It is 12 miles south-east of Lignitz, 30 south-west of Breslau, and 87 east of Prague. E. Long. 16. 29. N. Lat. 50. 56.

JAUNDICE (derived from the French *jaunisse*, "yellowness," of *jaune*, "yellow"); a disease consisting in a suffusion of the bile, and a rejection thereof to the surface of the body, whereby the whole exterior habit is discoloured. See MEDICINE *Index*.

JAUTS, a people of Hindostan. See SUPPLEMENT.

JAWS. See MAXILLÆ.

Locked Jaw, is a spasmodic contraction of the lower jaw, commonly produced by some external injury affecting the tendons or ligaments. See MEDICINE *Index*.

JAY, see CORVUS, ORNITHOLOGY *Index*.

JAY, *Guy Michael le*, a French gentleman, who distinguished himself by causing a polyglot bible to be printed at his own expence in 10 vols folio: but he ruined himself by that impression, first because he would not suffer it to appear under the name of Cardinal Richelieu, who, after the example of Cardinal Ximenes, was ambitious of eternizing his name by this means; and next, because he made it too dear for the English market; on which Dr Walton undertook his polyglot bible, which, being more commodious, reduced the price of M. le Jay's. After the death of his wife, M. le Jay took orders, was made dean of Vezelay in the Nivernois, and Louis XIV. gave him the post of counsellor of state.

Jay || Ibycus.

JAZER, or JASER, in *Ancient Geography*, a Levitical city in the territory of the Amorrhites beyond Jordan, 10 miles to the west, or rather south-west, of Philadelphia, and 15 miles from Esebon, and therefore situated between Philadelphia and Heshbon, on the east border of the tribe of Gad, supposed to be the *Jazorem* of Josephus. In Jeremiah xlviii. mention is made of the sea of Jazer, that is, a lake; taken either for an effusion or overflowing of the Arnon, a lake through which it passes, or from which it takes its rise.

IBERIA, SPAIN so called by the ancients, from the river Iberus. *Iberes* the people, from the nominative *Iber*. See HISPANIA.

IBERIA was also the name of an inland country of Asia, having Colchis to the west, with a part of Pontus; to the north Mount Caucasus; on the east Albania; and on the south Armenia Magna: Now the western part of Georgia (see GEORGIA). Iberia, according to Josephus, was first peopled by Tubal, the brother of Gomer and Magog. His opinion is confirmed by the Septuagint; for Meshech and Tubal are by these interpreters rendered *Moschi* and *Iberians*. We know little of the history of the country till the reign of Mithridates, when their king, named *Artocis*, siding with that prince against Lucullus, and afterwards against Pompey, was defeated by the latter with great slaughter; but afterwards obtained a peace, upon delivering up his sons as hostages. Little notice is taken of the succeeding kings by the ancient historians. They were probably tributary to the Romans till that empire was overturned, when this, with the other countries in Asia bordering on it, fell successively under the power of the Saracens and Turks.

IBERIS, SCIATICA CRESSES, or *Candy-tuft*, a genus of plants belonging to the tetradynamia class, and in the natural method ranking under the 39th order, *Siliquosæ*. See BOTANY *Index*.

IBEX, a species of goat. See CAPRA, MAMMALIA *Index*.

IBIS. See TANTALUS, ORNITHOLOGY *Index*.

IBYCUS, a Greek lyric poet, of whose works there are only a few fragments remaining, flourished 550 B. C. It is said, that he was assassinated by robbers; and that, when dying, he called upon some cranes he saw flying to bear witness. Some time after, one of the murderers seeing some cranes, said to his companions, "There are the witnesses of Ibycus's death;" which being reported to the magistrates, the assassins were put to the torture, and having confessed the fact, were hanged. Thence arose the proverb *Ibyci Grues*.

ICE,

Ice. ICE, in *Physiology*, a solid, transparent, and brittle body, formed of some fluid, particularly water, by means of cold.

The young Lemery observes, that ice is only a re-establishment of the parts of water in their natural state; that the mere absence of fire is sufficient to account for this re-establishment; and that the fluidity of water is a real fusion, like that of metals exposed to the fire; differing only in this, that a greater quantity of fire is necessary to the one than the other. Galileo was the first that observed ice to be lighter than the water which composed it: and hence it happens, that ice floats upon water, its specific gravity being to that of water as eight to nine. This rarefaction of ice seems to be owing to the air-bubbles produced in water by freezing; and which, being considerably large in proportion to the water frozen, render the body so much specifically lighter: these air-bubbles, during their production, acquire a great expansive power, so as to burst the containing vessels, though ever so strong.

M. Mairan, in a dissertation on ice, attributes the increase of its bulk chiefly to a different arrangement of the parts of the water from which it is formed; the icy skin on the water being composed of filaments, which, according to him, are found to be constantly and regularly joined at an angle of 60°; and which, by this angular disposition, occupy a greater volume than if they were parallel. He found the augmentation of the volume of water by freezing, in different trials, a 14th, an 18th, a 19th; and when the water was previously purged of air, only a 22d part: that ice, even after its formation, continues to expand by cold; for, after water had been frozen to some thickness, the fluid part being let out by a hole in the bottom of the vessel, a continuance of the cold made the ice convex; and a piece of ice, which was at first only a 14th part specifically lighter than water, on being exposed some days to the frost, became a 12th part lighter. To this cause he attributes the bursting of ice on ponds.

Wax, resins, and animal fats, made fluid by fire, instead of expanding like watery liquors, shrink in their return to solidity: for solid pieces of the same bodies sink to the bottom of their respective fluids; a proof that these bodies are more dense in their solid than in their fluid state. The oils which congeal by cold, as olive oil, and the essential oil of aniseeds, appear also to shrink in their congelation. Hence, the different dispositions of different kinds of trees to be burst by, or to resist, strong frosts, are by some attributed to the juices with which the tree abounds; being in the one case watery, and in the other resinous or oily.

Though it has been generally supposed that the natural crystals of ice are stars of six rays, forming angles of 60° with each other, yet this crystallization of water, as it may properly be called, seems to be as much affected by circumstances as that of salts. Hence we find a considerable difference in the accounts of those who have undertaken to describe these crystals. M. Mairan informs us, that they are stars with six radii; and his opinion is confirmed by observing the figure of frost on glass. M. Rome de L'Isle determines the form of the solid crystal to be an equilateral octaedron. M. Hassenfratz found it to be a prismatic hexaedron; but M. d'Antic found a method of reconciling these seemingly opposite opinions. In a violent hail-storm, where the hailstones were very large, he found they had sharp wedge-like angles of more than half an inch; and in these he supposed it impossible to see two pyramidal tetraedra joined laterally, and not to conclude that each grain was composed of octaedrons converging to a centre. Some had a cavity in the middle; and he saw the opposite extremities of two opposite pyramids, which constitute the octaedron; he likewise saw the octaedron entire united in the middle; all of them were therefore similar to the crystals formed upon a thread immersed in a saline solution. On these principles M. d'Antic constructed an artificial octaedron resembling one of the largest hailstones; and found that the angle at the summit of the pyramid was 45°, but that of the junction of the two pyramids 145°. It is not, however, easy to procure regular crystals in hailstones where the operation is conducted with such rapidity: in snow and hoar-frost, where the crystallization goes on more slowly, our author is of opinion that he sees the rudiments of octaedra.

Ice forms generally on the surface of the water: but this too, like the crystallization, may be varied by an alteration in the circumstances. In Germany, particularly the northern parts of that country, it has been observed that there are three kinds of ice. 1. That which forms on the surface. 2. Another kind formed in the middle of the water, resembling nuclei or small hail. 3. The ground ice which is produced at the bottom, especially where there is any fibrous substance to which it may adhere. This is full of cells like a wasp's nest, but less regular; and performs many strange effects in bringing up very heavy bodies from the bottom, by means of its inferiority in specific gravity to the water in which it is formed. The ice which forms in the middle of the water rises to the top, and there unites into large masses; but the formation both of this and the ground ice takes place only in violent and sudden colds, where the water is shallow, and the surface disturbed in such a manner that the congelation cannot take place. The ground ice is very destructive to dykes and other aquatic works. In the more temperate European climates these kinds of ice are not met with.

In many countries the warmth of the climate renders ice not only a desirable, but even a necessary article; so that it becomes an object of some consequence to fall upon a ready and cheap method of procuring it. We shall here take notice of some attempts made by Mr Cavallo to discover a method of producing a sufficient degree of cold for this purpose by the evaporation of volatile liquors. He found, however, in the course of these experiments, that ether was incomparably superior to any other fluid in the degree of cold it produced. The price of the liquor naturally induced him to fall upon a method of using it with as little waste as possible. The thermometer he made use of had the ball quite detached from the ivory piece on which the scale was engraved. The various fluids were then thrown upon the ball through the capillary aperture of a small glass vessel shaped like a funnel; and care was taken to throw them upon it so slowly, that a drop might now and then fall from the under part, excepting when those fluids were used, which

Ice. which evaporate very slowly; in which case it was sufficient barely to keep the ball moist, without any drop falling from it. During the experiment, the thermometer was kept very gently turning round its axis, that the fluid made use of might fall upon every part of its ball. He found this method preferable to that of dipping the ball of the thermometer into the fluid and taking it out again immediately, or even of anointing it constantly with a feather. The evaporation, and consequently the cold, produced by it, may be increased by blowing on the thermometer with a pair of bellows; though this was not used in the experiments now to be related, on account of the difficulty of its being performed by one person, and likewise because it occasions much uncertainty in the results.

The room in which the experiments were made was heated to 64° of Fahrenheit; and with water it was reduced to 56°, viz. 8° below that of the room or of the water employed. The effect took place in about two minutes; but though the operation was continued for a longer time, it did not sink lower. With spirit of wine it sunk to 48°. The cold was greater with highly rectified spirit than with the weaker sort; but the difference is less than would be expected by one who had never seen the experiment made. The pure spirit produces its effect much more quickly. On using various other fluids which were either compounded of water and spirituous liquors, or pure essences, he found that the cold produced by their evaporation was generally some intermediate degree between that produced by water and the spirit of wine. Oil of turpentine sunk the mercury three degrees; but olive oil and others, which evaporate very slowly, or not at all, did not sensibly affect the thermometer.

To observe how much the evaporation of spirit of wine, and consequently the cold produced by it, would be increased by electricity, he put the tube containing it into an insulating handle, and connected it with the conductor of an electrical machine, which was kept in action during the time of making the experiment; by which means one degree of cold seemed to be gained, as the mercury now sunk to 47° instead of 48°, at which it had stood formerly. On trying the three mineral acids, he found that they heated the thermometer instead of cooling it; which effect he attributes to the heat they themselves acquired by uniting with the moisture of the atmosphere. The vitriolic acid, which was very strong and transparent, raised the mercury to 102°, the smoking nitrous acid to 72°, and the marine to 66°.

Plate CCLXXVIII. fig. 1. The apparatus for using the least possible quantity of ether for freezing water consists in a glass tube (fig. 1.) terminating in a capillary aperture, which is to be fixed upon the bottle containing the ether. Round the lower part of the neck at A some thread is wound, in order to let it fit the neck of the bottle. When the experiment is to be made, the stopper of the bottle containing the ether is to be removed, and the tube just mentioned put in its room. The thread round the tube ought also to be previously moistened with water or spittle before it is put into the neck of the bottle, in order the more effectually to prevent the escape of the ether betwixt the neck of the phial and tube. Hold then the bottle by its bottom FG (fig. 2.) Fig. 2. and keeping it inclined as in the figure, the small stream of ether issuing out of the aperture D of the tube DE, is directed upon the ball of the thermometer, or upon a tube containing water or other liquor that is required to be congealed. As ether is very volatile, and has the remarkable property of increasing the bulk of air, there is no aperture requisite to allow the air to enter the bottle while the liquid flows out. The heat of the hand is more than sufficient to force out the ether in a continued stream at the aperture D. Ice.

In this manner, throwing the stream of ether upon the ball of a thermometer in such a quantity that a drop might now and then, every ten seconds for instance, fall from the bulb of the thermometer, Mr Cavallo brought the mercury down to 3°, or 29° below the freezing point, when the atmosphere was somewhat hotter than temperate. When the ether is very good, i. e. capable of dissolving elastic gum, and has a small bulb, not above 20 drops of it are required to produce this effect, and about two minutes of time; but the common sort must be used in greater quantity, and for a longer time; though at last the thermometer is brought down by this very nearly as low as by the best sort.

To freeze water by the evaporation of ether, Mr Cavallo takes a thin glass tube about four inches long, and one-fifth of an inch diameter, hermetically sealed at one end, with a little water in it, so as to take up about half an inch of the cavity, as is shewn at CB in fig. 3. Into this tube a slender wire H is also introduced, the lower extremity of which is twisted into a spiral, and serves to draw up the bit of ice when formed. He then holds the glass tube by its upper part A with the fingers of the left hand, and keeps it continually and gently turning round its axis, first one way and then the other: whilst with the right hand he holds the phial containing the ether in such a manner as to direct the stream on the outside of the tube, and a little above the surface of the water contained in it. The capillary aperture D should be kept almost in contact with the surface of the tube containing the water; and by continuing the operation for two or three minutes, the water will be frozen as it were in an instant; and the opacity will ascend to C in less than half a second of time, which makes a beautiful appearance. This congelation, however, is only superficial: and in order to congeal the whole quantity of water, the operation must be continued a minute or two longer; after which the wire H will be found kept very tight by the ice. The hand must then be applied to the outside of the tube, in order to soften the surface of the ice; which would otherwise adhere very firmly to the glass; but when this is done, the wire H easily brings it out. Fig. 3.

Sometimes our author was accustomed to put into the tube a small thermometer instead of the wire H; and thus he had an opportunity of observing a very curious phenomenon unnoticed by others, viz. that in the winter time water requires a smaller degree of cold to congeal it than in the summer. In the winter, for instance, the water in the tube AB will freeze when the thermometer stands about 30°; but in the summer, or even when the thermometer stands at 60°, the quicksilver must be brought down 10, 15, or even more de-

Ice. grees below the freezing point before any congelation can take place. In the summer time, therefore, a greater quantity of ether, and more time, will be required to congeal any given quantity of water than in winter. When the temperature of the atmosphere has been about 40°, our author has been able to congeal a quantity of water with an equal quantity of good ether; but in summer, two or three times the quantity are required to perform the effect. "There seems (says he) to be something in the air, which, besides heat, interferes with the freezing of water, and perhaps of all fluids; though I cannot say from my own experience whether the above-mentioned difference between the freezing in winter and summer takes place with other fluids, as milk, oils, wines," &c.

The proportion of ether requisite to congeal water seems to vary with the quantity of the latter; that is, a large quantity of water seems to require a proportionably less quantity of ether to freeze it than a smaller one. "In the beginning of the spring (says Mr Cavallo), I froze a quarter of an ounce of water with about half an ounce of ether: the apparatus being larger, though similar to that described above. Now as the price of ether, sufficiently good for the purpose, is generally about 18d. or 2s. per ounce, it is plain, that with an expence under two shillings, a quarter of an ounce of ice, or ice-cream, may be made in every climate, and at any time, which may afford great satisfaction to those persons, who, living in those places where no natural ice is to be had, never saw or tasted any such delicious refreshment. When a small piece of ice, for instance, of about ten grains weight, is required, the necessary apparatus is very small, and the expence not worth mentioning. I have a small box four inches and a half long, two inches broad, and one and a half deep, containing all the apparatus necessary for this purpose; viz. a bottle capable of containing about one ounce of ether; two pointed tubes, in case one should break; a tube in which the water is to be frozen, and a wire. With the quantity of ether contained in this small and very portable apparatus, the experiment may be repeated about ten times. A person who wishes to perform such experiments in hot climates, and in places where ice is not easily procured, requires only a larger bottle of ether besides the whole apparatus described above." Electricity increases the cold produced by means of evaporating ether but very little, though the effect is perceptible. Having thrown the electrified and also the unelectrified stream of ether upon the bulb of a thermometer, the mercury was brought down two degrees lower in the former than in the latter case.

Our author observes, for the sake of those who may be inclined to repeat this experiment, that a cork confined this volatile fluid much better than a glass stopple, which it is almost impossible to grind with such exactness as to prevent entirely the evaporation of the ether. When a stopple, made very nicely out of an uniform and close piece of cork, which goes rather tight, is put upon a bottle of ether, the smell of that fluid cannot be perceived through it; but he never saw a glass stopple which could produce that effect. In this manner, ether, spirit of wine, or any other volatile fluid, may be preserved, which does not corrode cork by its fumes. When the stopple, however, is very often taken out, it becomes loose, as it will also be by long keeping: in either of which cases it must be changed. Ice.

Blink of the Ice, is a name given by the pilots to a bright appearance near the horizon, occasioned by the ice, and observed before the ice itself is seen.

Ice-Boats, boats so constructed as to sail upon ice, and which are very common in Holland, particularly upon the river Maese and the lake Y. See Plate CCLXXVIII. They go with incredible swiftness, sometimes so quick as to affect the breath, and are found very useful in conveying goods and passengers over lakes and great rivers in that country. Boats of different sizes are placed in a transverse form upon a $2\frac{1}{2}$ or 3 inch deal board; at the extremity of each end are fixed irons, which turn up in the form of skaits; upon this plank the boat rests, and the two ends serve as out-riggers to prevent oversetting; whence ropes are fastened that lead to the head of the mast in the nature of shrouds, and others passed through a block across the bowsprit: the rudder is made somewhat like a hatchet with the head placed downwards, which being pressed down, cuts the ice, and serves all the purposes of a rudder in the water, by enabling the helmsman to steer, tack, &c.

Method of making Ice-Cream. Take a sufficient quantity of cream, and, when it is to be mixed with raspberry, or currant, or pine, a quarter part as much of the juice or jam, as of the cream: after beating and straining the mixture through a cloth, put it with a little juice of lemon into the mould, which is a pewter vessel, and varying in size and shape at pleasure; cover the mould, and place it in a pail about two-thirds full of ice, into which two handfuls of salt have been thrown; turn the mould by the hand-hold with a quick motion to and fro, in the manner used for milling chocolate, for eight or ten minutes; then let it rest as long, and turn it again for the same time; and having left it to stand half an hour, it is fit to be turned out of the mould and to be sent to table. Lemon juice and sugar, and the juices of various kinds of fruits, are frozen without cream; and when cream is used, it should be well mixed.

Ice-Hills, a sort of structure or contrivance common upon the river Neva at Petersburg, and which afford a perpetual fund of amusement to the populace. They are constructed in the following manner. A scaffolding is raised upon the river about 30 feet in height, with a landing place on the top, the ascent to which is by a ladder. From this summit a sloping plane of boards, about four yards broad and 30 long, descends to the superficies of the river; it is supported by strong poles gradually decreasing in height, and its sides are defended by a parapet of planks. Upon these boards are laid square masses of ice about four inches thick, which being first smoothed with the axe and laid close to each other, are then sprinkled with water: by these means they coalesce, and, adhering to the boards, immediately form an inclined plane of pure ice. From the bottom of this plane the snow is cleared away for the length of 200 yards, and the breadth of four, upon the level bed of the river; and the sides of this course, as well as the sides and top of the scaffolding, are ornamented with firs and pines. Each person, being provided with

Ice. a sledge, mounts the ladder; and having attained the summit, he seats himself upon his sledge at the upper extremity of the inclined plane, down which he suffers it to glide with considerable rapidity, poising it as he goes down; when the velocity acquired by the descent carries it above 100 yards upon the level ice of the river. At the end of this course, there is usually a similar ice-hill, nearly parallel to the former, which begins where the other ends; so that the person immediately mounts again, and in the same manner glides down the other inclined plane of ice. This diversion he repeats as often as he pleases. The boys also are continually employed in skaiting down these hills: they glide chiefly upon one skait, as they are able to poise themselves better upon one leg than upon two. These ice-hills exhibit a pleasing appearance upon the river, as well from the trees with which they are ornamented, as from the moving objects which at particular times of the day are descending without intermission.

Ice-House, a repository for ice during the summer months. The aspect of ice-houses should be towards the east or south-east, for the advantage of the morning sun to expel the damp air, as that is more pernicious than warmth: for which reason trees in the vicinity of an ice-house tend to its disadvantage.

The best soil for an ice-house to be made in is chalk, as it conveys away the waste water without any artificial drain; next to that, loose stony earth or gravelly soil. Its situation should be on the side of a hill, for the advantage of entering the cell upon a level, as in the drawing, Plate CCLXXVIII.

To construct an ice-house, first choose a proper place at a convenient distance from the dwelling-house, or houses it is to serve: dig a cavity (if for one family, of the dimensions specified in the design) of the figure of an inverted cone, sinking the bottom concave, to form a reservoir for the waste water till it can drain off; if the soil requires it, cut a drain to a considerable distance, or so far as will come out at the side of the hill, or into a well, to make it communicate with the springs, and in that drain form a stink or air-trap, marked *l*, by sinking the drain so much lower in that place as it is high, and bring a partition from the top an inch or more into the water, which will consequently be in the trap; and will keep the well air-tight. Work up a sufficient number of brick piers to receive a cart-wheel, to be laid with its convex side upwards to receive the ice; lay hurdles and straw upon the wheel, which will let the melted ice drain through, and serve as a floor. The sides and dome of the cone are to be nine inches thick—the sides to be done in steened brickwork, *i. e.* without mortar, and wrought at right angles to the face of the work: the filling in behind should be with gravel, loose stones, or brick-bats, that the water which drains through the sides may the more easily escape into the well. The doors of the ice-house should be made as close as possible, and bundles of straw placed always before the inner door to keep out the air.

Description of the parts referred to by the letters.—*a* The line first dug out. *b* The brick circumference of the cell. *c* The diminution of the cell downwards. *d* The lesser diameter of the cell. *e* The cart wheel or joists and hurdles. *f* The piers to receive the wheel or floor. *g* The principal receptacle for straw. *h* The inner passage, *i* the first entrance, *k* the outer door, passages having a separate door each. *l* An air trap. *m* The well. *n* The profile of the piers. *o* The ice filled in. *p* The height of the cone. *q* The dome worked in two half brick arches. *r* The arched passage. *s* The door-ways inserted in the walls. *t* The floor of the passage. *u* An aperture through which the ice may be put into the cell; this must be covered next the crown of the dome, and then filled in with earth. *x* The sloping door, against which the straw should be laid. Ice.

The ice when to be put in should be collected during the frost, broken into small pieces, and rammed down hard in strata of not more than a foot, in order to make it one complete body; the care in putting it in, and well ramming it, tends much to its preservation. In a season when ice is not to be had in sufficient quantities, snow may be substituted.

Ice may be preserved in a dry place under ground, by covering it well with chaff, straw, or reeds.

Great use is made of chaff in some places of Italy to preserve ice: the ice-house for this purpose need only be a deep hole dug in the ground on the side of a hill, from the bottom of which they can easily carry out a drain, to let out the water which is separated at any time from the ice, that it may not melt and spoil the rest. If the ground is tolerably dry, they do not line the sides with any thing, but leave them naked, and only make a covering of thatch over the top of the hole: this pit they fill either with pure snow, or else with ice taken from the purest and clearest water; because they do not use it as we do in England, to set the bottles in, but really mix it with the wine. They first cover the bottom of the hole with chaff, and then lay in the ice, not letting it anywhere touch the sides, but ramming in a large bed of chaff all the way between: they thus carry on the filling to the top, and then cover the surface with chaff; and in this manner it will keep as long as they please. When they take any of it out for use, they wrap the lump up in chaff, and it may then be carried to any distant place without waste or melting.

It appears from the investigation of Professor Beckman, in his History of Inventions, that the ancients from the earliest ages were acquainted with the method of preserving snow for the purpose of cooling liquors in summer. "This practice, (he observes), is mentioned by Solomon *; and proofs of it are so numerous in the works of the Greeks and the Romans, that it is unnecessary for me to quote them, especially as they have been collected by others. How the repositories for keeping it were constructed, we are not expressly told; but it is probable that the snow was preserved in pits or trenches.

* *Proverbs.* xxv. 13.

"When Alexander the Great besieged the city of Petra, he caused 30 trenches to be dug, and filled with snow, which was covered with oak branches; and which kept in that manner for a long time. Plutarch says, that a covering of chaff and coarse cloth is sufficient; and at present a like method is pursued in Portugal. Where the snow has been collected in a deep gulf, some grass or green sods, covered with dung from the

Ice. sheep pens, is thrown over it; and under these it is so well preserved, that the whole summer through it is sent the distance of 60 Spanish (nearly 180 English) miles to Lisbon.

"When the ancients, therefore, wished to have cooling liquors, they either drank the melted snow, or put some of it in their wine; or they placed jars filled with wine in the snow, and suffered it to cool there as long as they thought proper. That ice was also preserved for the like purpose, is probable from the testimony of various authors; but it appears not to have been used so much in warm countries as in the northern. Even at present snow is employed in Italy, Spain, and Portugal; but in Persia ice. I have never any where found an account of Grecian or Roman ice-houses. By the writers on agriculture they are not mentioned."

Ice-Island, a name given by sailors to a great quantity of ice collected into one huge solid mass, and floating about upon the seas near or within the Polar circles. —Many of these fluctuating islands are met with on the coasts of Spitzbergen, to the great danger of the shipping employed in the Greenland fishery. In the midst of those tremendous masses navigators have been arrested and frozen to death. In this manner the brave Sir Hugh Willoughby perished with all his crew in 1553; and in the year 1773, Lord Mulgrave, after every effort which the most finished seaman could make to accomplish the end of his voyage, was caught in the ice, and was near experiencing the same unhappy fate. See the account at large in *Phipps's Voyage to the North Pole*. As there described, the scene, divested of the horror from the eventful expectation of change, was the most beautiful and picturesque:—Two large ships becalmed in a vast bason, surrounded on all sides by islands of various forms: the weather clear: the sun gilding the circumambient ice, which was low, smooth, and even; covered with snow, excepting where the pools of water on part of the surface appeared crystalline with the young ice: the small space of sea they were confined in perfectly smooth. After fruitless attempts to force a way through the fields of ice, their limits were perpetually contracted by its closing; till at length it beset each vessel till they became immoveably fixed. The smooth extent of surface was soon lost; the pressure of the pieces of ice, by the violence of the swell, caused them to pack: fragment rose upon fragment till they were in many places higher than the main-yard. The movements of the ships were tremendous and involuntary, in conjunction with the surrounding ice, actuated by the currents. The water shoaled to 14 fathoms. The grounding of the ice or of the ships would have been equally fatal: The force of the ice might have crushed them to atoms, or have lifted them out of the water and overset them, or have left them suspended on the summits of the pieces of ice at a tremendous height, exposed to the fury of the winds, or to the risk of being dashed to pieces by the failure of their frozen dock. An attempt was made to cut a passage through the ice; after a perseverance worthy of Britons, it proved fruitless. The commander, at all times master of himself, directed the boats to be made ready to be hauled over the ice, till they arrived at navigable water (a task alone of seven days), and in them to make their voyage to England. The boats were drawn progressively three whole days. At length a wind sprung up, the ice separated sufficiently to yield to the pressure of the full-sailed ships, which, after labouring against the resisting fields of ice, arrived on the 10th of August in the harbour of Smeeringberg, at the west end of Spitzbergen, between it and Hackluyt's Headland. Ice, Icebergs.

The forms assumed by the ice in this chilling climate are extremely pleasing to even the most incurious eye. The surface of that which is congealed from the sea water (for we must allow it two origins) is flat and even, hard, opake, resembling white sugar, and incapable of being slid on, like the British ice. The greater pieces, or fields, are many leagues in length: the lesser are the meadows of the seals, on which these animals at times frolic by hundreds. The motion of the lesser pieces is as rapid as the currents: the greater, which are sometimes 200 leagues long, and 60 or 80 broad, move slow and majestically; often fix for a time, immoveable by the power of the ocean, and then produce near the horizon that bright white appearance called the *blink*. The approximation of two great fields produces a most singular phenomenon: it forces the lesser (if the term can be applied to pieces of several acres square) out of the water, and adds them to their surface; a second and often a third succeeds; so that the whole forms an aggregate of a tremendous height. These float in the sea like so many rugged mountains, and are sometimes 500 or 600 yards thick; but the far greater part is concealed beneath the water. These are continually increased in height by the freezing of the spray of the sea, or of the melting of the snow, which falls on them. Those which remain in this frozen climate receive continual growth; others are gradually wafted by the northern winds into southern latitudes, and melt by degrees, by the heat of the sun, till they waste away, or disappear in the boundless element.

The collision of the great fields of ice, in high latitudes, is often attended with a noise that for a time takes away the sense of hearing any thing else; and the lesser with a grinding of unspeakable horror. The water which dashes against the mountainous ice freezes into an infinite variety of forms; and gives the voyager ideal towns, streets, churches, steeples, and every shape which imagination can frame.

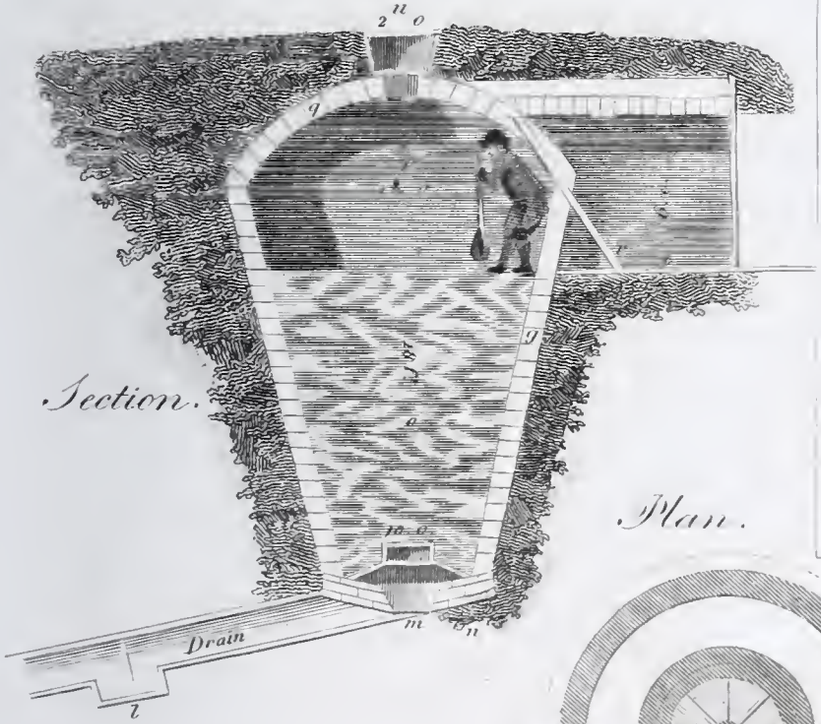
Ice-Plant. See MESEMBRYANTHEMUM, BOTANY *Index*.

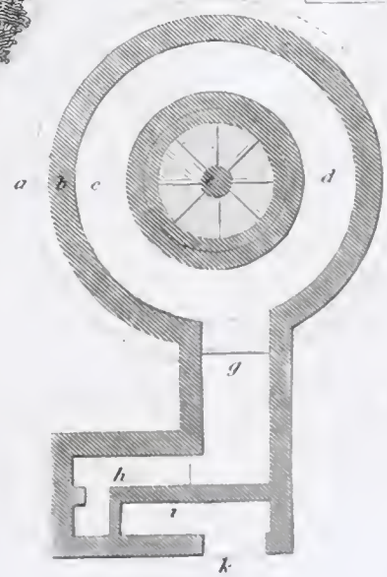
ICEBERGS, are large bodies of ice filling the valleys between the high mountains in northern latitudes. Among the most remarkable are those of the east coast of Spitzbergen (see GREENLAND, N° 10.). They are seven in number, but at considerable distances from each other; each fills the valleys for tracts unknown in a region totally inaccessible in the internal parts. The glaciers* of Switzerland seem contemptible to these; but present often a similar front into some lower valley. The last exhibits over the sea a front 300 feet high, emulating the emerald in colour; cataracts of melted snow precipitate down various parts, and black spiring mountains, streaked with white, bound the sides, and rise crag above crag, as far as eye can reach in the back ground. See Plate CCLXXVIII. At times immense fragments break off, and tumble into the water, with a most alarming dashing. A piece of this vivid green substance has fallen, and grounded in 24 fathoms water, and spired above the surface 50 feet†. Similar

* See *Glaciers*.

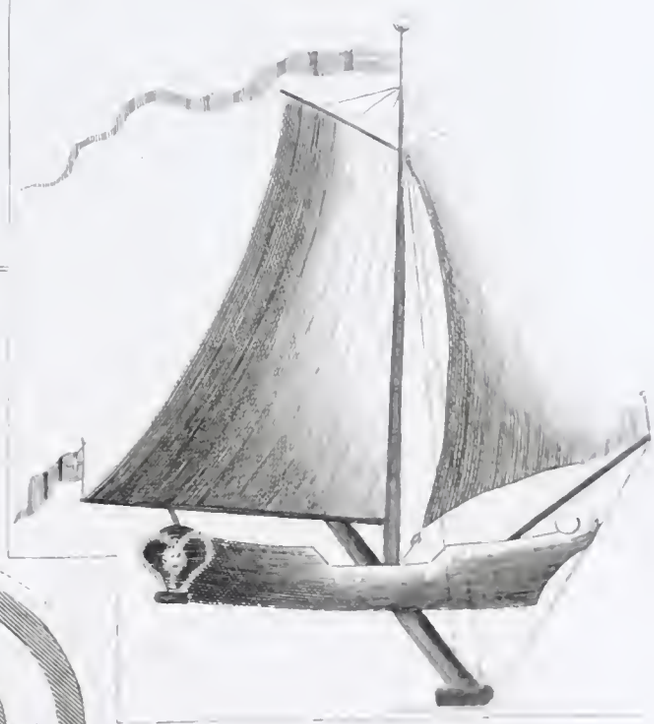
† *Phipps's Voyage*, p. 10.

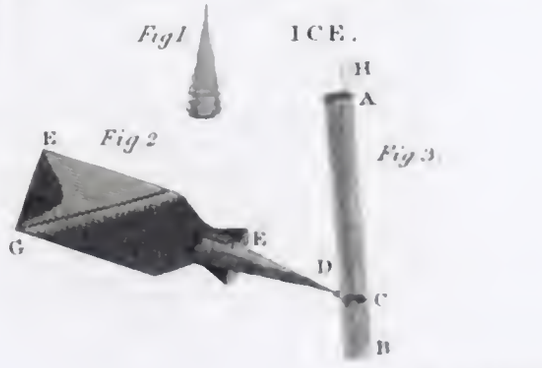
ICE House.





ICE Boat.





Icebergs, Iceland.

lar icebergs are frequent in all the Arctic regions; and to their lapses is owing the solid mountainous ice which infests those seas.—Frost sports wonderfully with these icebergs, and gives them majestic as well as other most singular forms. Masses have been seen assuming the shape of a Gothic church, with arched windows and doors, and all the rich drapery of that style, composed of what an Arabian tale would scarcely dare to relate, of crystal of the richest sapphirine blue; tables with one or more feet; and often immense flat-roofed temples, like those of Luxor on the Nile, supported by round transparent columns of cerulean hue, float by the astonished spectator. These icebergs are the creation of ages, and receive annually additional height by the falling of snows and of rain, which often instantly freezes, and more than repairs the loss occasioned by the influence of the melting sun.

ICELAND, a large island lying in the northern part of the Atlantic ocean, between 63 and 67 degrees of north latitude, and between 16 and 24 degrees of west longitude; its greatest length being about 700 miles, and its breadth 300.

1. General account of the country.

This country lying partly within the frigid zone, and being liable to be surrounded with vast quantities of ice which come from the polar seas, is, on account of the coldness of its climate, very inhospitable; but much more so for other reasons. It is exceedingly subject to earthquakes; and so full of volcanoes, that the little part of it which appears fit for the habitation of man seems almost totally laid waste by them. The best account that hath yet appeared of the island of Iceland is in a late publication, intitled "Letters on Iceland, &c. written by Uno Von Troil, D. D. first chaplain to his Swedish majesty." This gentleman sailed from London on the 12th of July 1772, in company with Mr Banks, Dr Solander, and Dr James Lind of Edinburgh, in a ship for which 100l. sterling was paid every month. After visiting the Western islands of Scotland, they arrived on the 28th of August at Iceland, where they cast anchor at Bessestedr or Bessastadr, lying in about 64° 6′ N. Lat. in the western part of the island. The country had to them the most dismal appearance that can be conceived. "Imagine to yourself (says Dr Troil) a country, which from one end to the other presents to your view only barren mountains, whose summits are covered with eternal snow, and between them fields divided by vitrified cliffs, whose high and sharp points seem to vie with each other to deprive you of the sight of a little grass which scantily springs up among them. These same dreary rocks likewise conceal the few scattered habitations of the natives, and no where a single tree appears which might afford shelter to friendship and innocence. The prospect before us, though not pleasing, was uncommon and surprising. Whatever presented itself to our view bore the marks of devastation; and our eyes, accustomed to behold the pleasing coasts of England, now saw nothing but the vestiges of the operation of a fire, Heaven knows how ancient."

2. Account of the climate.

The climate of Iceland, however, is not unwholesome, or naturally subject to excessive colds, notwithstanding its northerly situation. There have been instances indeed of Fahrenheit's thermometer sinking to 24° below the freezing point in winter, and rising to 104° in summer. Since the year 1749, observations have been made on the weather; and the result of these observations hath been unfavourable, as the coldness of the climate is thought to be on the increase, and of consequence the country is in danger of becoming unfit for the habitation of the human race. Wood, which formerly grew in great quantities all over the island, cannot now be raised. Even the hardy firs of Norway cannot be reared in this island. They seemed indeed to thrive till they were about two feet high; but then their tops withered, and they ceased to grow. This is owing chiefly to the storms and hurricanes which frequently happen in the months of May and June, and which are very unfavourable to vegetation of every kind. In 1772, Governor Thodal sowed a little barley, which grew very briskly; but a short time before it was to be reaped, a violent storm so effectually destroyed it, that only a few grains were found scattered about. Besides these violent winds, this island lies under another disadvantage, owing to the floating ice already mentioned, with which the coasts are often beset. This ice comes on by degrees, always with an easterly wind, and frequently in such quantities as to fill up all the gulfs on the north-west side of the island, and even covers the sea as far as the eye can reach; it also sometimes drives to other shores. It generally comes in January, and goes away in March. Sometimes it only reaches the land in April; and, remaining there for a long time, does an incredible deal of mischief. It consists partly of mountains of ice, said to be sometimes 60 fathoms in height; and partly of field ice, which is neither so thick nor so much dreaded. Sometimes these enormous masses are grounded in shoal-water; and in these cases they remain for many months, nay years, undissolved, chilling the atmosphere for a great way round. When many such bulky and lofty ice-masses are floating together, the wood which is often found drifting between them, is so much chafed, and pressed with such violence together, that it sometimes takes fire: which circumstance has occasioned fabulous accounts of the ice being in flames.

Iceland.

In 1753 and 1754, this ice occasioned such a violent cold, that horses and sheep dropped down dead by reason of it, as well as for want of food; horses were observed to feed upon dead cattle, and the sheep ate off each other's wool. In 1755, towards the end of the month of May, the waters were frozen over in one night to the thickness of an inch and five lines. In 1756, on the 26th of June, snow fell to the depth of a yard, and continued falling through the months of July and August. In the year following it froze very hard towards the end of May and beginning of June, in the south part of the island, which occasioned a great scarcity of grass. These frosts are generally followed by a famine, many examples of which are to be found in the Icelandic chronicles. Besides these calamities, a number of bears annually arrive with the ice, which commit great ravages among the sheep. The Icelanders attempt to destroy these intruders as soon as they get sight of them. Sometimes they assemble together, and drive them back to the ice, with which they often float off again. For want of fire-arms, they are obliged to use spears on these occasions. The government also encourages the destruction of these animals, by

Iceland. by paying a premium of 10 dollars for every bear that is killed, and purchasiug the skin of him who killed it.

Notwithstanding this dismal picture, however, taken from Von Troil's letters, some tracts of ground, *in high cultivation*, aré mentioned as being covered by the great eruption of lava in 1783. It is possible, therefore, that the above may have been somewhat exaggerated.

Thunder and lightning are seldom heard in Iceland, except in the neighbourhood of volcanoes. Aurora Borealis is very frequent and strong. It most commonly appears in dry weather; though there are not wanting instances of its being seen before or after rain, or even during the time of it. The lunar halo, which prognosticates bad weather, is likewise very frequent here; as are also parhelions, which appear from one to nine in number at a time. These parhelions are observed chiefly at the approach of the Greenland ice, which an intense degree of frost has produced, and the frozen vapours fill the air. Fire-balls, sometimes round and sometimes oval, are observed, and a kind of *ignis fatuus* which attaches itself to men and beasts; and comets are also frequently mentioned in their chronicles. This last circumstance deserves the attention of astronomers.

Iceland, besides all the inconveniences already mentioned, has two very terrible ones, called by the natives *skrida* and *snioflodi*: the name of the first imports large pieces of a mountain tumbling down and destroying the lands and houses which lie at the foot of it: this happened in 1554, when a whole farm was ruined, and thirteen people buried alive. The other word signifies the effects of a prodigious quantity of snow, which covers the top of the mountains, rolling down in immense masses, and doing a great deal of damage: of this there was an instance in 1699, during the night, when two farms were buried, with all their inhabitants and cattle. This last accident Iceland has in common with all very mountainous countries, particularly Switzerland.

3 Account of the hot springs of Iceland from *Von Troil's Letters.*

"Iceland abounds with hot and boiling springs, some of which spout up into the air to a surprising height. All the jets d'eau which have been contrived with so much art, and at such an enormous expence, cannot by any means be compared with these wonders of nature in Iceland. The water-works at Herenhausen throw up a single column of water of half a quarter of a yard in circumference to a height of about 70 feet; those at the Winterkesten at Cassel throw it up, but in a much thinner column, 130 feet; and the jet d'eau at St Cloud, which is thought the greatest of all the French water-works, casts up a thin column 80 feet into the air; but some springs in Iceland pour forth columns of water several feet in thickness to the height of many fathoms; and many affirm of several hundred feet.

"These springs are unequal in their degrees of heat; but we have observed none under 188 degrees of Fahrenheit's thermometer; in some it is 192, 193, 212, and in one small vein of water 213 degrees. From some the water flows gently, and the spring is then called *laug*, "a bath;" from others it spouts with a great noise, and is then called HUER, or *kittel*. It is very common for some of these spouting springs to close up, and others to appear in their stead. All these hot waters have an incrusting quality, so that we very commonly find the exterior surface from whence it bursts forth covered with a kind of rind, which almost resembles chased work, and which we at first took for lime, but which was afterwards found by Mr Bergman to be of a siliceous or flinty nature. In some places the water tastes of sulphur, in others not; but when drank as soon as it is cold, tastes like common boiled water. The inhabitants use it at particular times for dyeing; and were they to adopt proper regulations, it might be of still greater use. Victuals may also be boiled in it, and milk held over its steam becomes sweet; owing, most probably, to the excessive heat of the water, as the same effect is produced by boiling it a long time over the fire. They have begun to make salt by boiling sea water over it, which when it is refined, is very pure and good. The cows which drink this hot water yield a great deal of milk. Egbert Olafsen relates, that the water does not become turbid when alkali is thrown into it, nor does it change the colour of syrup of violets. Horrebow asserts, that if you fill a bottle at one of the spouting springs, the water will boil over two or three times while the spring throws forth its water; and if corked too soon, the bottle will burst. Iceland.

4 A particular description of one named *Geyser.*

"Among the many hot springs to be met with in Iceland, several bear the name of *geyser*: the following is a description of the most remarkable of that name, and in the whole island. It is about two days journey from Hecla, near a farm called *Haukadul*. Here a poet would have an opportunity of painting whatever nature has of beautiful and terrible, united in one picture, by delineating this surprising phenomenon. Represent to yourself a large field, where you see on one side, at a great distance, high mountains covered with ice, whose summits are generally wrapped in clouds, so that their sharp and unequal points become invisible. This loss, however, is compensated by a certain wind, which causes the clouds to sink, and cover the mountain itself, when its summit appears as it were to rest on the clouds. On the other side Hecla is seen, with its three points covered with ice, rising above the clouds, and, with the smoke which ascends from it, forming other clouds at some distance from the real ones: and on another side is a ridge of high rocks, at the foot of which boiling water from time to time issues forth; and further on extends a marsh of about three English miles in circumference, where are 40 or 50 boiling springs, from which a vapour ascends to a prodigious height.—In the midst of these is the greatest spring *geyser*, which deserves a more exact and particular account. In travelling to the place, about an English mile and a half from the *hver*, from which the ridge of rocks still divided us, we heard a loud roaring noise, like the rushing of a torrent precipitating itself from stupendous rocks. We asked our guide what it meant; he answered, it was *geyser* roaring; and we soon saw with our naked eyes what before seemed almost incredible.

"The depth of the opening or pipe from which the water gushes cannot well be determined; for sometimes the water sunk down several fathoms, and some seconds passed before a stone which was thrown into the aperture reached the surface of the water. The opening itself was perfectly round, and 19 feet in diameter,

Iceland.

meter, and terminated in a bason 59 feet in diameter. Both the pipe and the bason were covered with a rough stalactitic rind, which had been formed by the force of the water: the outermost border of the bason is nine feet and an inch higher than the pipe itself. The water here spouted several times a-day, but always by starts, and after certain intervals. The people who lived in the neighbourhood told us, that they rose higher in cold and bad weather than at other times; and Egbert Olafsen and several others affirm, that it has spouted to the height of 60 fathoms. Most probably they guessed only by the eye, and on that account their calculation may be a little extravagant; and indeed it is to be doubted whether the water was ever thrown up so high, though probably it sometimes mounts higher than when we observed it. The method we took to observe the height was as follows. Every one in company wrote down, at each time that the water spouted, how high it appeared to him to be thrown, and we afterwards chose the medium. The first column marks the spoutings of the water, in the order in which they followed one another; the second, the time when these effusions happened; the third, the height to which the water rose; and the last, how long each spouting of water continued.

N°	Time.	Height.	Duration.
1	At VI 42 m.	30 feet.	0 20 seconds.
2	——— 51	6	0 20
3	—VII 16	6	0 10
4	——— 31	12	0 15
5	——— 51	60	0 6
6	—VIII 17	24	0 30
7	——— 29	18	0 40
8	——— 36	12	0 40

The pipe was now for the first time full of water, which ran slowly into the bason.

9	—IX 25	48	1 10
10	—X 16	24	1 00

"At 35 minutes after twelve we heard, as it were, three discharges of a gun under ground, which made it shake: the water flowed over immediately, but instantly sunk again. At eight minutes after two, the water flowed over the border of the bason. At 15 minutes after three, we again heard several subterranean noises, though not so strong as before. At 43 minutes after four, the water flowed over very strongly during the space of a minute. In six minutes after, we heard many loud subterraneous discharges, not only near the spring, but also from the neighbouring ridge of rocks, where the water spouted. At 51 minutes after six, the fountain spouted up to the height of 92 feet, and continued to do so for four minutes. After this great effort, it sunk down very low into the pipe, and was entirely quiet during several minutes; but soon began to bubble again: it was not, however, thrown up into the air, but only to the top of the pipe.

"The force of the vapours which throw up these waters is excessive: it not only prevents the stones which are thrown into the opening from sinking, but even throws them up to a very great height, together with the water. When the bason was full, we placed ourselves before the sun in such a manner that we could see our shadows in the water; when every one observed round the shadow of his own head (though not round that of the heads of others), a circle of almost the same colours which compose the rainbow, and round this another bright circle. This most probably proceeded from the vapours exhaling from the water.

Iceland.

"Not far from this place, another spring at the foot of the neighbouring ridge of rocks spouted water to the height of one or two yards each time. The opening through which this water issued was not so wide as the other: we imagined it possible to stop up the hole entirely by throwing large stones into it, and even flattered ourselves that our attempts had succeeded: but, to our astonishment, the water gushed forth in a very violent manner. We hastened to the pipe, and found all the stones thrown aside, and the water playing freely through its former channel. In these large springs the waters were hot in the highest degree, and tasted a little of sulphur; but in other respects it was pure and clear. In the smaller springs of the neighbourhood the water was tainted: in some, it was as muddy as that of a clay-pit: in others, as white as milk; and in some few, as red as blood.

5 Account of the basaltic pillars, &c.

"Iceland abounds with pillars of basaltes, which the lower sort of people imagine have been piled upon each other by the giants, who made use of supernatural force to effect it. They have generally from three to seven sides; and are from four to six feet in thickness, and from 12 to 16 yards in length, without any horizontal divisions. But sometimes they are only from six inches to one foot in height, and they are then very regular, insomuch that they are sometimes made use of for windows and door-posts. In some places they only peep out here and there among the lava, or more frequently among the tufa; in other places they are quite overthrown, and pieces of broken pillars only make their appearance. Sometimes they extend without interruption for two or three miles in length. In one mountain they have a singular appearance: on the top the pillars lie horizontally, in the middle they are sloping; the lowest are perfectly perpendicular; and in some parts they are bent into a semicircular figure. The matter of the Iceland basaltes seems to be the same with that of STAFFA; though in some it is more porous, and inclines to a gray. Some we observed which were of a blackish gray, and composed of several joints. Another time we observed a kind of porous glassy stone, consequently a lava, which was so indistinctly divided, that we were for some time at a loss to determine whether it was basaltes or not, though at last we all agreed that it was.

Iron ore is found in some parts of the island, and that beautiful copper ore called *malachites*. Horrebow speaks of native silver. A stratum of sulphur is found near Myvatn from nine inches to two feet in thickness; partly of a brown colour, and partly of a deep orange. Immediately over the sulphur is a blue earth; above that a vitriolic and aluminous one; and beneath the sulphur a reddish bole.

6 History of the island.

At what time the island of Iceland was first peopled is uncertain. An English colony indeed is said to have been settled there in the beginning of the fifth century;

Iceland. century; but of this there are not sufficient proofs. There is, however, reason to suppose that the English and Irish were acquainted with this country under another name, long before the arrival of the Norwegians; for the celebrated Bede gives a pretty accurate description of the island. But of the original inhabitants we cannot pretend to say any thing, as the Iceland chronicles go no farther back than the arrival of the Norwegians. What they relate is to the following purpose.

Naddodr, a famous pirate, was driven on the coast of Iceland in 861, and named the country *Snio-land*, "Snow-land," on account of the great quantities of snow with which he perceived the mountains covered. He did not remain there long: but on his return extolled the country to such a degree, that one Garder Suafarson, an enterprising Swede, was encouraged by his account to go in search of it in 864. He sailed quite round the island, and gave it the name of *Gardalsholmur*, or Garder's island. Having remained in Iceland during the winter, he returned in the spring to Norway, where he described the new-discovered island as a pleasant well-wooded country. This excited a desire in Floke, another Swede, reputed the greatest navigator of his time, to undertake a voyage thither. As the compass was then unknown, he took three ravens on board to employ them on the discovery. By the way he visited his friends at Ferro; and having sailed farther to the northward, he let fly one of his ravens, which returned to Ferro. Some time after, he dismissed the second, which returned to the ship again, as he could find no land. The last trial proved more successful; the third raven took his flight to Iceland, where the ship arrived a few days after. Floke staid here the whole winter with his company; and, because he found a great deal of floating ice on the north side, he gave the country the name of *Iceland*, which it has ever since retained.

When they returned to Norway in the following spring, Floke, and those that had been with him, made a very different description of the country. Floke described it as a wretched place; while one of his companions named *Thorulfr*, praised it so highly, that he affirmed butter dropped from every plant; which extravagant commendation procured him the name of *Thoralfr-smior*, or Butter-Thorulfr.

From this time there are no accounts of any voyages to Iceland, till Ingolfr and his friend Leifr undertook one in 874. They spent the winter on the island, and determined to settle there for the future. Ingolfr returned to Norway, to provide whatever might be necessary for the comfortable establishment of a colony, and Leifr in the mean time went to assist in the war in England. After an interval of four years, they again met in Iceland, the one bringing with him a considerable number of people, with the necessary tools and instruments for making the country habitable; and the other imported his acquired treasures. After this period many people went there to settle; and, in the space of 60 years, the whole island was inhabited. The tyranny of Harold king of Norway contributed not a little to the population of Iceland; and so great was the emigration of his subjects, that he was at last obliged to issue an order, that no one should sail from Norway to Iceland without paying four ounces of fine silver to the king. Iceland.

Besides the Norwegians, new colonies arrived from different nations, between whom wars soon commenced; and the Icelandic histories are full of the accounts of their battles. To prevent these conflicts for the future, a kind of chief was chosen in 928, upon whom great powers were conferred. This man was the speaker in all their public deliberations; pronounced sentence in difficult and intricate cases; decided all disputes; and published new laws, after they had been received and approved of by the people at large: but he had no power to make laws without the approbation and consent of the rest. He therefore assembled the chiefs whenever the circumstances seemed to require it; and after they had deliberated among themselves, he represented the opinion of the majority to the people, whose assent was necessary before it could be considered as a law. His authority among the chiefs and leaders, however, was inconsiderable, as he was chosen by them and retained his place no longer than while he preserved their confidence.

This institution did not prove sufficient to restrain the turbulent spirit of the Icelanders. They openly waged war with each other; and, by their intestine conflicts, so weakened all parties, that the whole became at last a prey to a few arbitrary and enterprising men; who, as is too generally the case, wantonly abused their power to the oppression of their countrymen, and the disgrace of humanity. Notwithstanding these troubles, however, the Icelanders remained free from a foreign yoke till 1261; when the greatest part of them put themselves under the protection of Hakans king of Norway, promising to pay him tribute upon certain conditions agreed on between them; and the rest followed their example in 1264. Afterwards, Iceland, together with Norway, became subject to Denmark. For a long time the care of the island was committed to a governor, who commonly went there once a-year; though, according to his instructions, he ought to have resided in Iceland. As the country suffered incredibly through the absence of its governors, it was resolved a few years ago that they should reside there, and have their seat at Bessesstedr, one of the old royal domains. He has under him a bailiff, two laymen, a sheriff, and 21 *sysselmen*, or magistrates who superintend small districts; and almost every thing is decided according to the laws of Denmark.

7 Manners, &c. of the Icelanders.

At the first settlement of the Norwegians in Iceland, they lived in the same manner as they had done in their own country, namely, by war and piracy. Their situation with regard to the kings of Norway, however, soon obliged them to apply to other states, in order to learn as much of the knowledge of government and politics as was necessary to preserve their colony from subjugation to a foreign yoke. For this purpose they often sailed to Norway, Denmark, Sweden, England, and Scotland. The travellers, at their return were obliged to give an account to their chiefs of the state of those kingdoms through which they passed. For this reason, history, and what related to science, was held in high repute as long as the republican form of government lasted; and the great number of histories

Iceland. to be met with in the country, show at least the desire of the Icelanders to be instructed. To secure themselves, therefore, against their powerful neighbours, they were obliged to enlarge their historical knowledge. They likewise took great pains in studying perfectly their own laws, for the maintenance and protection of their internal security. Thus Iceland, at a time when ignorance and obscurity overwhelmed the rest of Europe, was enabled to produce a considerable number of poets and historians. When the Christian religion was introduced, about the end of the 10th century, more were found conversant in the law than could have been expected, considering the extent of the country, and the number of its inhabitants. Fishing was followed among them; but they devoted their attention considerably more to agriculture, which has since entirely ceased.

Two things have principally contributed towards producing a great change both in their character and way of life, viz. the progress of the Christian religion, and their subjection first to Norway, and afterwards to Denmark. For if religion, on one side, commanded them to desist from their ravages and warlike expeditions; the secular power, on the other, deprived them of the necessary forces for the execution of them: and, since this time, we find no farther traces of their heroic deeds, except those which are preserved in their histories.

The modern Icelanders apply themselves to fishing and breeding of cattle. They are middle-sized and well made, though not very strong; and the women are in general ill-featured. Vices are much less common among them, than in other parts where luxury and riches have corrupted the morals of the people. Though their poverty disables them from imitating the hospitality of their ancestors in all respects, yet they continue to show their inclination to it: they cheerfully give away the little they have to spare, and express the utmost joy and satisfaction if you are pleased with their gift. They are uncommonly obliging and faithful, and extremely attached to government. They are very zealous in their religion. An Icelander never passes a river or any other dangerous place, without previously taking off his hat, and imploring the divine protection; and he is always thankful for the protection of the Deity when he has passed the danger in safety. They have an inexpressible attachment to their native country, and are nowhere so happy. An Icelander therefore rarely settles in Copenhagen, though ever such advantageous terms should be offered him. On the other hand, we cannot ascribe any great industry or ingenuity to these people. They work on in the way to which they have all along been accustomed, without thinking of improvements. They are not cheerful in conversation, but simple and credulous; and have no aversion against a bottle, if they can find an opportunity. When they meet together, their chief pastime consists in reading their history. The master of the house makes the beginning, and the rest continue in their turns when he is tired. Some of them know these stories by heart; others have them in print, and others in writing. Besides this, they are great players at chess and cards, but only for their amusement, since they never play for money; which, however, seems to have been formerly in use among them; since by one of their old laws, a fine is imposed upon those who play for money. Iceland.

The modern Icelanders have made very little alteration in their dress from what was formerly in use. The men all wear a linen shirt next to the skin, with a short jacket, and a pair of wide breeches over it. When they travel, another short coat is put over all. The whole is made of coarse black cloth, called *wadmal;* but some wear clothes of a white colour. On their head they wear large three-cornered hats, and on the feet Iceland shoes and worsted stockings. Some of them indeed have shoes from Copenhagen; but, as they are rather too dear for them, they generally make their own shoes, sometimes of the hide of oxen, but more frequently of sheeps leather. They make them by cutting a square piece of leather, rather wider than the length of the foot; this they sew up at the toes and behind at the heel, and tie it on with leather thongs. These shoes are convenient enough where the country is level; but it would be very difficult for us who are not accustomed to walk with them amongst the rocks and stones, though the Icelanders do it with great ease. S Their dress.

The women are likewise dressed in black wadmal. They wear a bodice over their shifts, which are sewed up at the bosom; and above this a jacket laced before with long narrow sleeves reaching down to the wrists. In the opening on the side of the sleeve, they have buttons of chased silver, with a plate fixed to each button; on which the lover, when he buys them in order to present them to his mistress, takes care to have his name engraved along with hers. At the top of the jacket a little black collar is fixed, of about three inches broad, of velvet or silk, and frequently trimmed with gold cord. The petticoat is likewise of wadmal, and reaches down to the ankles. Round the top of it is a girdle of silver or some other metal, to which they fasten the apron, which is also of wadmal, and ornamented at top with buttons of chased silver. Over all this they wear an upper dress nearly resembling that of the Swedish peasants; with this difference, that it is wider at bottom: this is close at the neck and wrists, and a hand's-breadth shorter than the petticoat. It is adorned with a facing down to the bottom, which looks like cut velvet, and is generally wove by the Icelandic women. On their fingers they wear gold, silver, or brass rings. Their head-dress consists of several cloths wrapped round the head almost as high again as the face. It is tied fast with a handkerchief, and serves more for warmth than ornament. Girls are not allowed to wear this head-dress till they are marriageable. At their weddings they are adorned in a very particular manner; the bride wears, close to the face, round her head-dress, a crown of silver gilt. She has two chains round her neck, one of which hangs down very low before, and the other rests on her shoulders. Besides these, she wears a lesser chain, from whence generally hangs a little heart, which may be opened to put some kind of perfume in it. This dress is worn by all the Icelandic women without exception: only with this difference, that the poorer sort have it of coarse wadmal, with ornaments of brass; and those that are in easier circumstances have it of broad cloth, with silver ornaments gilt.

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9 Houses.

The houses of the Icelanders are very indifferent, but the worst are said to be on the south side of the island. In some parts they are built of drift-wood, in others of lava, almost in the same manner as the stone-walls we make for inclosures, with moss stuffed between the pieces of lava. In some houses the walls are wainscotted on the inside. The roof is covered with sods, laid over rafting, or sometimes over the ribs of whales; the walls are about three yards high, and the entrance somewhat lower. Instead of glass, the windows are made of the chorion and amnios of sheep, or the membranes which surround the womb of the ewe. These are stretched on a hoop, and laid over a hole in the roof. In the poorer sort of houses they employ for the windows the inner membrane of the stomach of animals, which is less transparent than the others.

10 Diet.

As the island of Iceland produces no kind of grain, the inhabitants of consequence have no bread but what is imported; and which being too dear for common use, is reserved for weddings and other entertainments. The following list of their viands is taken from Troil's Letters.

"1. Flour of *fialgras*, (*lichen islandicus*), or rock-grass. The plant is first washed, and then cut into small pieces by some; though the greater number dry it by fire or in the sun, then put it into a bag in which it is well beaten, and lastly work it into a flour by stamping.

"2. Flour of *komsygr*, (*polygonum bistorta*), is prepared in the same manner, as well as the two other sorts of wild corn *melur* (*arundo arenaria*, and *arundo foliorum lateribus convolutis*), by separating it from the chaff, pounding, and lastly grinding it.

"3. *Surt smoer*, (sour butter). The Icelanders seldom make use of fresh or salt butter, but let it grow sour before they eat it. In this manner it may be kept for 20 years, or even longer; and the Icelanders look upon it as more wholesome and palatable than the butter used among other nations. It is reckoned better the older it grows; and one pound of it then is valued as much as two of fresh butter.

"3. *Striug*, or whey boiled to the consistence of sour milk, and preserved for the winter.

"4. Fish of all kinds, both dried in the sun and in the air, and either salted or frozen. Those prepared in the last manner are preferred by many.

"5. The flesh of bears, sheep, and birds, which is partly salted, partly hung or smoked, and some preserved in casks with sour or fermented whey poured over it.

"6. *Misost*, or whey boiled to cheese, which is very good. But the art of making other kinds of good cheese is lost, though some tolerably palatable is sold in the east quarter of Iceland.

"7. *Beina striug*, bones and cartilages of beef and mutton, and likewise bones of cod, boiled in whey till they are quite dissolved: they are then left to ferment, and are eaten with milk.

"8. *Skyr*. The curds from which the whey is squeezed are preserved in casks or other vessels; they are sometimes mixed with black crow-berries or juniper-berries, and are likewise eaten with new milk.

"9. *Syra*, is sour whey kept in casks, and left to ferment; which, however, is not reckoned fit for use till a year old.

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"10. *Blanda*, is a liquor made of water, to which a twelfth part of syra is added. In winter, it is mixed with the juice of thyme and of the black crow-berries.

"11. They likewise eat many vegetables, some of which grow wild, and some are cultivated; also shell-fish and mushrooms."

The Icelanders in general eat three meals a-day, at seven in the morning, two in the afternoon, and nine at night. In the morning and evening they commonly eat curds mixed with new milk, and sometimes with juniper or crow-berries. In some parts, they also have pottage made of rock-grass, which is very palatable, or curdled milk boiled till it becomes of a red colour, or new milk boiled a long time. At dinner, the food consists of dried fish, with plenty of sour butter; they also sometimes eat fresh fish, and, when possible, a little bread and cheese with them. It is reported by some, that they do not eat any fish till it is quite rotten; this report perhaps proceeds from their being fond of it when a little tainted: they however frequently eat fish which is quite fresh, though, in the same manner as the rest of their food, often without salt.

The common beverage is milk, either warm from the cow or cold, and sometimes boiled: they likewise use butter-milk with or without water. On the coasts they generally drink blanda and sour milk; which is sold after it is skimmed at two-fifths of a rixdollar per cask: some likewise send for beer from Copenhagen, and some brew their own. A few of the principal inhabitants also have claret and coffee. The common people sometimes drink a kind of tea, which they make from the leaves of the *dryas octopetala*, and the *veronica officinalis*.

11 Employment, manufactures, &c.

On the coasts the men employ themselves in fishing, both summer and winter. On their return home, when they have drawn and cleaned their fish, they give them to their wives, whose care it is to dry them. In the winter, when the inclemency of the weather prevents them from fishing, they are obliged to take care of the cattle, and spin wool. In summer, they mow the grass, dig turf, provide fuel, go in search of sheep and goats that were gone astray, and kill cattle. They prepare leather with the *spiræa ulmaria* instead of bark. Some few work in gold and silver; and others are instructed in mechanics, in which they are tolerable proficients. The women prepare the fish, take care of the cattle, manage the milk and wool, sew, spin, and gather eggs and down. When they work in the evening, they use, instead of an hour-glass, a lamp with a wick made of epilobium dipt in train oil, which is contrived to burn four, six, or eight hours.

Among the common people of Iceland, time is not reckoned by the course of the sun, but by the work they have done, and which is prescribed by law. According to this prescription, a man is to mow as much hay in one day as grows on 30 fathoms of manured soil, or 40 fathoms of land which has not been manured; or he is to dig 700 pieces of turf eight feet long and three broad. If as much snow falls as reaches to the horses bellies, a man is required daily to clear a piece of ground sufficient for 100 sheep. A woman is to rake together as much hay as three men can mow, or to weave three yards of wadmal a-day.

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The wages of a man are fixed at four dollars and 12 yards of wadmal; and those of a woman at two dollars and five yards of wadmal. When men are sent a fishing out of the country, there is allowed to each man, by law, from the 25th of September to the 14th of May, six pounds of butter, and 18 pounds of dried fish every week. This may seem to be too great an allowance; but it must be remembered that they have nothing else to live upon. When they are at home, and can get milk, &c. every man receives only five pounds of dried fish and three quarters of a pound of butter a-week.

12 Diseases.

The food and manner of life of the Icelanders by no means contribute to their longevity. It is very rare indeed to see an inhabitant of Iceland exceed the age of 50 or 60; and the greater part are attacked by grievous diseases before middle age. Of these the scurvy and elephantiasis or leprosy are the worst. They are also subject to the gout in their hands, owing to their frequent employment in fishing, and handling the wet fishing-tackle in cold weather. St Anthony's fire, the jaundice, pleurisy, and lowness of spirits, are frequent complaints in this country. The small-pox also is exceedingly fatal, and not long ago destroyed 16,000 persons. By these diseases, and the frequent famines with which the country has been afflicted, the inhabitants are reduced to a much smaller number than they formerly were, insomuch that it is computed they do not in all exceed 60,000.

13 Commerce and revenue.

The exports of Iceland consist of dried fish, salted mutton and lamb, beef, butter, tallow, train oil, coarse woollen cloth, stockings, gloves, raw wool, sheep-skins, lamb-skins, fox-furs of various colours, eider down, feathers, and formerly sulphur; but there is no longer a demand for this mineral. On the other hand, the Icelanders import timber, fishing-lines and hooks, tobacco, bread, horse-shoes, brandy, wine, salt, linen, a little silk, and a few other necessaries, as well as superfluities for the better sort. The whole trade of Iceland is engrossed by a monopoly of Danes, indulged with an exclusive charter. This company maintains factories at all the harbours of Iceland, where they exchange their foreign goods for the merchandise of the country; and as the balance is in favour of the Icelanders, pay the overplus in Danish money, which is the only current coin in this island. All their accounts and payments are adjusted according to the number of fish: two pounds of fish are worth two skillings in specie, and 48 fish amount to one rixdollar. A Danish crown is computed at 30 fish: what falls under the value of 12 fish cannot be paid in money; but must be bartered either for fish or roll-tobacco, an ell of which is equal to one fish. The weights and measures of the Icelanders are nearly the same with those used in Denmark. The Icelanders being neither numerous nor warlike, and altogether unprovided with arms, ammunition, garrisons, or fleets, are in no condition to defend themselves from invasion, but depend entirely on the protection of his Danish majesty, to whom they are subject. The revenues which he draws from this island consist of the income of divers estates, as royal demesne, amounting to about 8000 dollars per annum; of the money paid by the company for an exclusive trade, to the value of 20,000 dollars; and of a fixed proportion in the tythes of fish paid in some particular districts.

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14 Volcanoes of Iceland

Iceland is noted for the volcanoes with which it abounds, as already mentioned, and which seem to be more furious than any yet discovered in the other parts of the globe. Indeed, from the latest accounts, it would seem that this miserable country were little other than one continued volcano. Mount Hecla has been commonly supposed to be the only burning mountain, or at least the principal one, in the island: (see HECLA). It has indeed been more taken notice of than many others of as great extent, partly from its having had more frequent eruptions than any single one, and partly from its situation, which exposes it to the sight of ships sailing to Greenland and North America. But in a list of eruptions published in the appendix to Pennant's Arctic Zoology, it appears, that out of 51 remarkable ones, only one-third have proceeded from Heela, the other mountains it seems being no less active in the work of destruction than this celebrated one. These eruptions take place in the mountains covered with ice, which the inhabitants call *Jokuls*. Some of these, as appears from a large map of Iceland made by order of his Danish majesty in 1734, have been swallowed up. Probably the great lakes met with in this country may have been occasioned by the sinking of such mountains, as several instances of a similar nature are to be met with in other parts of the world. The great Icelandic lake called *Myvatu* may probably have been one. Its bottom is entirely formed of lava, divided by deep cracks, which shelter during winter the great quantity of trout which inhabit this lake. It is now only 30 feet deep, but originally was much deeper; being nearly filled up in the year 1718 by an eruption of the great mountain *Krafle*. The fiery stream took its course towards *Myvatu*, and ran into it with an horrid noise, which continued till the year 1730.

"The mountains of Iceland (says Mr Pennant) are of two kinds, primitive and posterior. The former consist of strata usually regular, but sometimes confused. They are formed of different sorts of stone without the least appearance of fire. Some are composed of sand and free-stone, petrosilex or chirt, slaty or fissile stone, and various kinds of earth or bole, and steatites; different sorts of *breccia* or conglutinated stones; jaspers of different kinds, Iceland crystal; the common rhomboid spathum, chalcedonies stratified, and *botryoid*; zeolites of the most elegant kinds; crystals, and various other substances that have no relation to volcanoes. These primitive mountains are those called *Jokuls*, and are higher than the others. One of them, called *Æsian* or *Rias*, is 6000 feet high. It seems to be composed of great and irregular rocks of a dark gray colour, piled on each other. Another, called *Enneberg*, is about 3000 feet high; the *Snafeld Jokul*, 2287 yards; the *Snæfeldnas* or promontory of *Snæfeld* is from 300 to 400 fathoms. *Harnstrand* or the coast by the north Cape Nord is very high, from 300 to 400 fathoms. The rocks of *Drango* are seven in number, of a pyramidal figure, rising out of the sea at a small distance from the cliffs, four of which are of a vast height, and have a most magnificent appearance.

"Eastward from the *Snafeld* begins the Eisherge, soaring

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soaring to a vast height; many parts of which have felt the effects of fire, and in some of the melted rocks are large cavities. *Budda-lekkur*, a rock at one end of this mountain, is also volcanic, and has in it a great cavern hung with *stalactitæ*. The name of *Solvahamar* is given to a tremendous range of volcanic rocks, composed entirely of slags, and covered in the season with sea-fowl. It would be endless, however, to mention all the places which bear the marks of fire in various forms, either by having been vitrified, changed into a fiery colour, ragged and black, or bear the marks of having run for miles in a sloping course towards the sea."

These volcanoes, though so dreadful in their effects, seldom begin to throw out fire without giving warning. A subterraneous rumbling noise, heard at a considerable distance, as in other volcanoes, precedes the eruption for several days, with a roaring and cracking in the place from whence the fire is about to burst forth; many fiery meteors are observed, but generally unattended with any violent concussion of the earth, though sometimes earthquakes, of which several instances are recorded, have accompanied these dreadful conflagrations. The drying up of small lakes, streams, and rivulets, is also considered as a sign of an impending eruption; and it is thought to hasten the eruption when a mountain is so covered with ice, that the holes are stopped up through which the exhalations formerly found a free passage. The immediate sign is the bursting of the mass of ice with a dreadful noise; flames then issue forth from the earth, and lightning and fire balls from the smoke; stones, ashes, &c. are thrown out to vast distances. Egbert Olafsen relates, that, in an eruption of *Kattle giaa* in 1755, a stone weighing 290 pounds was thrown to the distance of 24 English miles. A quantity of white pumice stones is thrown up by the boiling waters: and it is conjectured with great probability, that the latter proceeds from the sea, as a quantity of salt, sufficient to load several horses, has frequently been found after the mountain has ceased to burn.

To enumerate the ravages of so many dreadful volcanoes, which from time immemorial have contributed to render this dreary country still less habitable than it is from the climate, would greatly exceed our limits. It will be sufficient to give an account of that which happened in 1783, and which from its violence seems to have been unparalleled in history.

115 The country almost desolated by an eruption in 1783.

Its first signs were observed on the 1st of June by a trembling of the earth in the western part of the province of *Skapterfiall*. It increased gradually to the 11th, and became at last so great that the inhabitants quitted their houses, and lay at night in tents on the ground. A continual smoke or steam was perceived rising out of the earth in the northern and uninhabited parts of the country. Three *fire-spouts*, as they were called, broke out in different places, one in *Ulfarsdal*, a little to the east of the river *Skapta;* the other two were a little to the westward of the river called *Ilwerfisfliot*. The river *Skapta* takes its rise in the north-east, and running first westward, it turns to the south, and falls into the sea in a south-east direction. Part of its channel is confined for about 24 English miles in length, and is in some places 200 fathoms deep, in others 100 or 150, and its breadth in some places 100, 50, or 40 fathoms. Along the whole of this part of its course the river is very rapid, though there are no considerable cataracts or falls. There are several other such confined channels in the country, but this is the most considerable.

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The three fire-spouts, or streams of lava, which had broke out, united into one, after having risen a considerable height into the air, arriving at last at such an amazing altitude as to be seen at the distance of more than 200 English miles; the whole country, for double that distance, being covered with a smoke or steam not to be described.

On the 8th of June this fire first became visible. Vast quantities of sand, ashes, and other volcanic matters were ejected, and scattered over the country by the wind, which at that time was very high. The atmosphere was filled with sand, brimstone, and ashes, in such a manner as to occasion continual darkness; and considerable damage was done by the pumice stones which fell, red hot, in great quantities. Along with these a tenacious substance like pitch fell in vast quantity; sometimes rolled up like balls, at other times like rings or garlands, which proved no less destructive to vegetation than the other. This shower having continued for three days, the fire became very visible, and at last arrived at the amazing height already mentioned. Sometimes it appeared in a continued stream, at others in flashes or flames seen at the distance of 30 or 40 Danish miles (180 or 240 of ours), with a continual noise like thunder, which lasted the whole summer.

The same day that the fire broke out there fell a vast quantity of rain, which running in streams on the hot ground tore it up in large quantities, and brought it down upon the lower lands. This rain-water was much impregnated with acid and other salts, so as to be highly corrosive, and occasion a painful sensation when it fell on the hands or face. At a greater distance from the fire the air was excessively cold. Snow lay upon the ground three feet deep in some places; and in others there fell great quantities of hail, which did very much damage to the cattle and every thing without doors. Thus the grass and every kind of vegetation in those places nearest the fire was destroyed, being covered with a thick crust of sulphureous and sooty matter. Such a quantity of vapour was raised by the contest of the two adverse elements, that the sun was darkened and appeared like blood, the whole face of nature seeming to be changed; and this obscurity seems to have reached as far as the island of Britain; for during the whole summer of 1783, an obscurity reigned throughout all parts of this island; the atmosphere appearing to be covered with a continual haze, which prevented the sun from appearing with his usual splendour.

The dreadful scene above described lasted in Iceland for several days; the whole country was laid waste, and the inhabitants fled everywhere to the remotest parts of their miserable country, to seek for safety from the fury of this unparalleled tempest.

On the first breaking out of the fire, the river *Skapta* was considerably augmented, on the east side of which one of the fire spouts was situated; and a similar overflow of water was observed at the same time in the great river *Piorsa*, which runs into the sea a little

Iceland. little to the eastward of a town called *Orrebakka*, and into which another river called *Tuna*, after having run through a large tract of barren and uncultivated land, empties itself. But on the 11th of June the waters of the Skapta were lessened, and in less than 24 hours totally dried up. The day following, a prodigious stream of liquid and red-hot lava, which the fire-spout had discharged, ran down the channel of the river. This burning torrent not only filled up the deep channel above mentioned, but, overflowing the banks of it, spread itself over the whole valley, covering all the low grounds in its neighbourhood; and not having any sufficient outlet to empty itself by, it rose to a vast height, so that the whole adjacent country was overflowed, insinuating itself between the hills, and covering some of the lower ones. The hills here are not continued in a long chain or series, but are separated from one another, and detached, and between them run little rivulets or brooks; so that, besides filling up the whole valley in which the river *Skapta* ran, the fiery stream spread itself for a considerable distance on each side, getting vent between the above-mentioned hills, and laying all the neighbouring country under fire.

The spouts still continuing to supply fresh quantities of inflamed matter, the lava took its course up the channel of the river, overflowing all the grounds above, as it had done those below the place whence it issued. The river was dried up before it, until at last it was stopped by the hill whence the *Skapta* took its rise. Finding now no proper outlet, it rose to a prodigious height, and overflowed the village of Buland, consuming the houses, church, and every thing that stood in its way: though the high ground on which this village stood seemed to ensure it from any danger of this kind.

The fiery lake still increasing, spread itself out in length and breadth for about 36 English miles; and having converted all this tract of land into a sea of fire, it stretched itself toward the south, and getting out again by the river Skapta, rushed down its channel with great impetuosity. It was still confined between the narrow banks of that river for about six miles (English); but coming at last into a more open place, it poured forth in prodigious torrents with amazing velocity and force; spreading itself now towards the south, tearing up the earth, and carrying on its surface flaming woods and whatsoever it met with. In its course it laid waste another large district of land. The ground where it came was cracked, and sent forth great quantities of steam long before the fire reached it; and every thing near the lake was either burnt up or reduced to a fluid state. In this situation matters remained from the 12th of June to the 13th of August; after which the fiery lake no longer spread itself, but nevertheless continued to burn; and when any part of the surface acquired a crust by cooling, it was quickly broken by the fire from below; and tumbling down among the melted substance, was rolled and tossed about with prodigious noise and crackling; and in many parts of its surface, small spouts or at least ebullitions, were formed, which continued for some length of time.

In other directions this dreadful inundation proved no less destructive. Having run through the narrow part of the channel of Skapta as early as the 12th of June, it stretched out itself towards the west and south-west, overflowing all the flat country, and its edge being no less than 70 fathoms high at the time it got out of the channel of the river. Continuing its destructive course, it overflowed a number of villages, running in every direction where it could find a vent. In one place it came to a great cataract of the river Skapta, about 14 fathoms in height, over which it was precipitated with tremendous noise, and thrown in great quantities to a very considerable distance. In another place it stopped up the channel of a large river, filled a great valley, and destroyed two villages by approaching only within 100 fathoms of them. Others were overflowed by inundations of water proceeding from the rivers which had been stopped in their courses; until at last all the passages on the south, east, and west, being stopped, and the spouts still sending up incredible quantities of fresh lava, it burst out to the north and north-east, spreading over a tract of land 48 miles long and 36 broad. Here it dried up the rivers *Tuna* and *Axasydri*; but even this vast effusion being insufficient to exhaust the subterraneous resources of liquid fire, a new branch took its course for about eight miles down the channel of the river *Ilwerfisfliot*, when coming again to an open country, it formed what our author calls a *small* lake of fire, about twelve miles in length and six in breadth. At last, however, this branch also stopped on the 16th of August; the fiery mountains ceased to pour forth new supplies, and this most astonishing eruption came to a period. Iceland.

The whole extent of ground covered by this dreadful inundation was computed at no less than 90 miles long and 42 in breadth; the depth of the lava being from 16 to 20 fathoms. Two rivers were dried up, 20 or 21 villages were destroyed, and 224 people lost their lives. The extent above mentioned, however, is that only on the south, east and west; for that towards the north being over uninhabited land, where no body cared to venture themselves, was not exactly known. Some hills were covered by this lava: others were melted down by its heat; so that the whole had the appearance of a sea of red hot and melted metal.

After this eruption two new islands were thrown up from the bottom of the sea. One, about three miles in circumference, and about a mile in height, made its appearance in the month of February 1784, where there was formerly 100 fathoms of water. It was about 100 miles south-west from Iceland, and 48 from a cluster of small islands called *Gierfugal*. It continued for some time to burn with great violence, sending forth prodigious quantities of pumice-stones, sand, &c. like other volcanoes. The other lay to the north-west, between Iceland and Greenland. It burnt day and night without intermission for a considerable time; and was also very high, and larger than the former. Since that time, however, one or both of these islands have been swallowed up.

All the time of this great eruption, and for a considerable time after, the whole atmosphere was loaded with smoke, steam, and sulphurous vapours. The sun was sometimes wholly invisible; and when it could be seen was of a reddish colour. Most of the fish-

ries

Iceland. ries were destroyed; the banks where the fish used to resort being so changed, that the fishermen could not know them again; and the smoke was so thick, that they could not go far out to sea. The rain water, falling through this smoke and steam, was so impregnated with salt and sulphureous matter, that the hair and even the skins of the cattle were destroyed; and the whole grass of the island was covered with soot and pitchy matter, that what had escaped the destructive effects of the fire became poisonous; so that the cattle died for want of food, or perished by eating those unwholesome vegetables. Nor were the inhabitants in a much better situation; many of them having lost their lives by the poisonous qualities of the smoke and steam with which the whole atmosphere was filled; particularly old people, and such as had any complaint in the breast and lungs.

Before the fire broke out in Iceland, there is said to have been a very remarkable eruption in the uninhabited parts of Greenland; and that in the northern parts of Norway, opposite to Greenland, the fire was visible for a long time. It was also related, that when the wind was in the north, a great quantity of ashes, pumice, and brimstone, fell upon the north and west coasts of Iceland, which continued for the whole summer whenever the wind was in that quarter; and the air was always very much impregnated with a thick smoke and sulphureous smell.

During the fall of the sharp rain formerly mentioned, there was observed at Trondheim, and other places in Norway, and likewise at Faw, an uncommon fall of sharp and salt rain, which totally destroyed the leaves of the trees, and every vegetable it fell upon, by scorching them up, and causing them to wither. A considerable quantity of ashes, sand, and other volcanic matters, fell at Faro, which covered the whole surface of the ground whenever the wind blew from Iceland, though the distance between the two places is not less than 480 miles. Ships that were sailing betwixt Copenhagen and Norway were frequently covered with ashes and sulphureous matter, which stuck to the masts, sails, and decks, besmearing them all over with a black and pitchy substance. In many parts of Holland, Germany, and other northern countries, a sulphureous vapour was observed in the air, accompanied with a thick smoke, and in some places a light gray-coloured substance fell upon the earth every night; which, by yielding a bluish flame when thrown into the fire, evidently showed its sulphureous nature. On those nights in which this substance fell in any quantity, there was little or no dew observed. These appearances continued, more or less, all the months of July, August, and September.

16 Vhorkelyn's account of the ancient state of the island.

Some curious particulars relative to the ancient state of this island have lately been published by a Mr Vhorkelyn, a native of the country. From his work it appears that Iceland, for a very considerable space of time, viz. from the beginning of the 10th to the middle of the 13th century, was under a republican form of government. At first the father, or head of every family, was an absolute sovereign; but in the progress of population and improvement, it became necessary to form certain regulations for the settlement of disputes concerning the frontiers of different estates. For this purpose the heads of the families concerned assembled themselves, and formed the outlines of a republic. In the mean time they carried on a prosperous trade to different parts; sending ships even to the Levant, and to Constantinople, at that time celebrated as the only seat of literature and humanity in the world. Deputies were likewise sent from this island over land to that capital, for the improvement of their laws and civilization; and this a whole century before the first crusade. In these ancient Icelandic laws, therefore, we meet with evident traces of those of the Greeks and Romans. For example, besides a body of written laws which were read every third year to the people, they had two men chosen annually by the heads of families, with consular power, not only to enforce the laws then in being, but when these proved deficient, to act as necessity required. Iceland.

These laws do not appear to have inflicted capital punishments upon any person. Murderers were banished to the *wood;* that is, to the interior and uncultivated parts of the island: where no person was allowed to approach them within a certain number of fathoms. In cases of banishment for lesser crimes, the friends of the offender were allowed to supply him with necessaries. The culprit, however, might be killed by any person who found him without his bounds; and he might even be hunted and destroyed in his sanctuary, provided he did not withdraw himself from the island within a twelvemonth after his sentence, which it was supposed he might accomplish by means of the annual arrival and departure of ships. Every man's person was free until he had forfeited his rights by some crime against society; and so great was their respect for independence, that great indulgence was allowed for the power of passion. If any provoking word or behaviour had been used, no punishment was inflicted on the party who resented it, even though he should have killed his adversary.

By the laws of Iceland, the poor were committed to the protection of their nearest kindred, who had a right to their labour as far as they were able to work, and afterwards to indemnification if the poor person should acquire any property. Children were obliged to maintain their parents in their old age; but if the latter had neglected to give them good education, they were absolved from this duty.

While the republic of Iceland continued free and independent, ships were sent from the island to all parts of the world. Till very lately, however, not a ship belonged to it, the little commerce it enjoyed being monopolized by a Danish company, until in 1786 it was laid open to all the subjects of Denmark. "There is at present (says Mr Pennant *) a revival of the cod fishery on the coast of Iceland from our kingdom. About a dozen of vessels have of late sailed from the isle of Thanet, and a few from other parts of Great Britain. They are either sloops or brigs from 50 to 80 tons burden. A lugsail boat, such as is used in the herring fishery, sailed last season from Yarmouth thus equipped. The crew consisted of five men from the town, and five more taken in at the Orkneys. They had twelve lines of 120 fathoms each, and 200 or 300 hooks; six heading knives, twelve gutting and twelve splitting knives. They take in 18 tons of salt at Leith, at the rate of three tons to every thousand fish; of which six or seven thousand is a load for a vessel of this

* *Appendix to Arctic Zoology*, p. 19.

Iceland || Ichoglans.

this kind. They go to sea about the middle of April; return by the Orkneys to land the men; and get into their port in the latter end of August or beginning of September. Pytheas says, that Iceland lies six days sailing from Great Britain. A vessel from Yarmouth was, in the last year, exactly that time in its voyage from the Orkneys to Iceland. With a fair wind it might be performed in far less time; but the winds about the Ferroe isles are generally changeable.

Iceland Agate, a kind of precious stone met with in the islands of Iceland and Ascension, employed by the jewellers as an agate, though too soft for the purpose. It is supposed to be a volcanic product; being solid, black, and of a glassy texture. When held between the eye and the light, it is semitransparent and greenish like the glass bottles which contain much iron. In the islands which produce it, such large pieces are met with, that they cannot be equalled in any glasshouse.

ICENI, the ancient name of the people of Suffolk, Norfolk, Cambridgeshire, and Huntingdonshire, in England.

ICH-DIEN. See HERALDRY, chap. iv. sect. 2.

ICHNEUMON, in *Zoology*. See VIVERRA, MAMMALIA *Index*.

ICHNEUMON is also the name of a genus of flies of the hymenoptera order. See ENTOMOLOGY *Index*.

ICHNOGRAPHY, in *Perspective*, the view of any thing cut off by a plane, parallel to the horizon, just at the base of it.—The word is derived from the Greek ἰχνος, *footstep*, and γραφω, *I write*, as being a description of the footsteps or traces of a work.

Among painters it signifies a description of images or of ancient statues of marble and copper, of busts and semi-busts, of paintings in fresco, mosaic works, and ancient pieces of miniature.

ICHNOGRAPHY, in *Architecture*, is a transverse or horizontal section of a building, exhibiting the plot of the whole edifice, and of the several rooms and apartments in any story; together with the thickness of the walls and partitions; the dimensions of the doors, windows, and chimneys; the projectures of the columns and piers, with every thing visible in such a section.

ICHOGLANS, the grand signior's pages serving in the seraglio. These are the children of Christian parents, either taken in war, purchased, or sent in presents from the viceroys and governors of distant provinces: they are the most sprightly, beautiful, and well-made that can be met with; and are always reviewed and approved of by the grand signior himself, before they are admitted into the seraglios of Pera, Constantinople, or Adrianople, being the three colleges where they are educated, or fitted for employment, according to the opinion the court entertains of them.

Ichor, Ichthyocolla

ICHOR, properly signifies a thin watery humour like serum; but is sometimes used for a thicker kind flowing from ulcers, called also *sanies*.

ICHTHYOCOLLA, ISINGLASS, a preparation from the fish known by the name of *huso*. See ACCIPENSER. The word is Greek, formed of ἰχθυς, *fish*, and κολλα, *glue*.—The method of making isinglass was long a secret in the hands of the Russians; but hath lately been discovered, and the following account of it published by Humphrey Jackson, Esq. in the 63d volume of the Philosophical Transactions.

"All authors who have hitherto delivered processes for making ichthyocolla, fish-glue, or isinglass, have greatly mistaken both its constituent matter and preparation.

"To prove this assertion, it may not be improper to recite what Pomet says upon the subject, as he appears to be the principal author whom the rest have copied. After describing the fish, and referring to a cut engraved from an original in his custody, he says: 'As to the manner of making the isinglass, the sinewy parts of the fish are boiled in water till all of them be dissolved that will dissolve; then the gluey liquor is strained, and set to cool. Being cold, the fat is carefully taken off, and the liquor itself boiled to a just consistency, then cut to pieces and made into a twist, bent in form of a crescent, as commonly sold; then hung upon a string, and carefully dried.'

"From this account, it might be rationally concluded, that every species of fish which contained gelatinous principles would yield isinglass: and this parity of reasoning seems to have given rise to the hasty conclusions of those who strenuously vouch for the extraction of isinglass from sturgeon; but as that fish is easily procurable, the negligence of ascertaining the fact by experiment seems inexcusable.

"In my first attempt to discover the constituent parts and manufacture of isinglass, relying too much upon the authority of some chemical authors whose veracity I had experienced in many other instances, I found myself constantly disappointed. Glue, not isinglass, was the result of every process; and although, in the same view, a journey to Russia proved fruitless, yet a steady perseverance in the research proved not only successful as to this object, but in the pursuit to discover a resinous matter plentifully procurable in the British fisheries, which has been found by ample experience to answer similar purposes. It is now no longer a secret that our (A) lakes and rivers in North America are stocked with immense quantities of fish, said to be the same species with those in Muscovy, and yielding the finest isinglass; the fisheries whereof, under due encouragement, would doubtless supply all Europe with this valuable article.

"No artificial heat is necessary to the production of isinglass, neither is the matter dissolved for this purpose; for,

(A) As the lakes of North America lie nearly in the same latitude with the Caspian sea, particularly Lake Superior, which is said to be of greater extent, it was conjectured they might abound with the same sorts of fish; and in consequence of public advertisements distributed in various parts of North America, offering premiums for the sounds of sturgeon and other fish, for the purpose of making isinglass, several specimens of fine isinglass, the produce of fish taken in these parts, have been lately sent to England, with proper attestations as to the unlimited quantity which may be procured.

Ichthyocolla.

for, as the continuity of its fibres would be destroyed by solution, the mass would become brittle in drying, and snap short asunder, which is always the case with glue, but never with isinglass. The latter, indeed, may be resolved into glue with boiling water; but its fibrous recomposition would be found impracticable afterwards, and a fibrous texture is one of the most distinguishing characteristic of genuine isinglass.

"A due consideration that an imperfect solution of isinglass, called *fining* by the brewers, possessed a peculiar property of clarifying malt liquors, induced me to attempt its analysis in cold subacid menstruums. One ounce and a half of good isinglass, steeped a few days in a gallon of stale beer, was converted into good fining, of a remarkable thick consistence: the same quantity of glue, under similar treatment, yielded only a mucilaginous liquor, resembling diluted gum-water, which, instead of clarifying beer, increased both its tenacity and turbidness, and communicated other properties in no respect corresponding with those of genuine fining. On commixing three spoonfuls of the solution of isinglass with a gallon of malt liquor, in a tall cylindrical glass, a vast number of curdly masses became presently formed, by the reciprocal attraction of the particles of isinglass and the feculencies of the beer, which increasing in magnitude and specific gravity, arranged themselves accordingly and fell in a combined state to the bottom, through the well-known laws of gravitation; for, in this case, there is no elective attraction, as some have imagined, which bears the least affinity with what frequently occurs in chemical decompositions.

"If what is commercially termed *long* or *short stapled isinglass* be steeped a few hours in fair cold water, the untwisted membranes will expand, and reassume their original beautiful (B) hue, and, by a dexterous address, may be perfectly unfolded. By this simple operation, we find that isinglass is nothing more than certain membranous parts of fishes, divested of their native mucosity, rolled and twisted into the forms above mentioned, and dried in open air.

"The sounds, or air-bladders, of fresh-water fish in general, are preferred for this purpose, as being the most transparent, flexible, delicate substances. These constitute the finest sorts of isinglass; those called *book* and *ordinary staple* are made of the intestines, and probably of the peritonæum of the fish. The beluga yields the greatest quantity, as being the largest and most plentiful fish in the Muscovy rivers; but the sounds of all fresh-water fish yield, more or less, fine isinglass, particularly the smaller sorts, found in prodigious quantities in the Caspian sea, and several hundred miles beyond Astracan, in the Wolga, Yaik, Don, and even as far as Siberia, where it is called *kle* or *kla* by the natives, which implies a glutinous matter; it is the basis of the Russian glue, which is preferred to all other kinds for its strength.

"The sounds, which yield the finer isinglass, consist of parallel fibres, and are easily rent longitudinally; but the ordinary sorts are found composed of double membranes, whose fibres cross each other obliquely, resembling the coats of a bladder: hence the former are more readily pervaded and divided with subacid liquors; but the latter, through a peculiar kind of interwoven texture, are with great difficulty torn asunder, and long resist the power of the same menstruum; yet when duly resolved, are found to act with equal energy in clarifying liquors.

"Isinglass receives its different shapes in the following manner.

"The parts of which it is composed, particularly the sound, are taken from the fish while sweet and fresh, slit open, washed from their slimy *sordes*, divested of every thin membrane which envelopes the sound, and then exposed to stiffen a little in the air. In this state, they are formed into rolls about the thickness of a finger, and in length according to the intended size of the staple: a thin membrane is generally selected for the centre of the roll, round which the rest are folded alternately, and about half an inch of each extremity of the roll is turned inwards. The due dimensions being thus obtained, the two ends of what is called *short staple* are pinned together with a small wooden peg; the middle of the roll is then pressed a little downwards, which gives it the resemblance of a heart-shape; and thus it is laid on boards, or hung up in the air to dry. The sounds, which compose the long-staple, are longer than the former; but the operator lengthens this sort at pleasure, by interfolding the ends of one or more pieces of the sound with each other. The extremities are fastened with a peg, like the former: but the middle part of the roll is bent more considerably downwards, and, in order to preserve the shape of the three obtuse angles thus formed, a piece of round stick, about a quarter of an inch diameter, is fastened in each angle with small wooden pegs, in the same manner as the ends. In this state, it is permitted to dry long enough to retain its form, when the pegs and sticks are taken out, and the drying completed; lastly, the pieces of isinglass are colligated in rows, by running pack-thread through the peg-holes, for convenience of package and exportation.

"The membranes of the *book* sort, being thick and refractory, will not admit a similar formation with the preceding; the pieces, therefore, after their sides are folded inwardly, are bent in the centre, in such manner that the opposite sides resemble the cover of a book, from whence its name; a peg being run across the middle, fastens the sides together, and thus it is dried like the former. This sort is interleaved, and the pegs run across the ends, the better to prevent its unfolding.

"That called *cake-isinglass* is formed of the bits and fragments of the staple sorts, put into a flat metalline pan, with a very little water, and heated just enough to make the parts cohere like a pancake when it is dried; but frequently it is overheated, and such pieces, as before observed, are useless in the business of fining. Experience has taught the consumers to reject them.

"Isinglass

(B) If the transparent isinglass be held in certain positions to the light, it frequently exhibits beautiful prismatic colours.

Ichthyocolla.

" Isinglass is best made in the summer, as frost gives it a disagreeable colour, deprives it of weight, and impairs its gelatinous principles; its fashionable forms are unnecessary, and frequently injurious to its native qualities. It is common to find oily putrid matter, and *exuviæ* of insects, between the implicated membranes, which, through the inattention of the cellerman, often contaminate wines and malt liquors in the act of clarification. These peculiar shapes might probably be introduced originally with a view to conceal and disguise the real substance of isinglass, and preserve the monopoly; but, as the mask is now taken off, it cannot be doubted to answer every purpose more effectually in its native state, without any subsequent manufacture whatever, especially to the principal consumers, who hence will be enabled to procure sufficient supply from the British colonies. Until this laudable end can be fully accomplished, and as a species of isinglass, more easily produceable from the marine fisheries, may probably be more immediately encouraged, it may be manufactured as follows:

" The sounds of cod and ling bear great analogy with those of the *accipenser* genus of Linnæus and Artedi; and are in general so well known as to require no particular description. The Newfoundland and Iceland fishermen split open the fish as soon as taken, and throw the back-bones with the sounds annexed in a heap; but previous to incipient putrefaction, the sounds are cut out, washed from their slimes, and salted for use. In cutting out the sounds, the intercostal parts are left behind, which are much the best; the Iceland fishermen are so sensible of this, that they beat the bone upon a block with a thick stick, till the pockets, as they term them, come out easily, and thus preserve the sound entire. If the sounds have been cured with salt, that must be dissolved by steeping them in water before they are prepared for isinglass; the fresh sound must then be laid upon a block of wood, whose surface is a little elliptical, to the end of which a small hair brush is nailed, and with a saw-knife the membranes on each side of the sound must be scraped off. The knife is rubbed upon the brush occasionally, to clear its teeth; the pockets are cut open with scissars, and perfectly cleansed of the mucous matter with a coarse cloth; the sounds are afterwards washed a few minutes in lime-water in order to absorb their oily principle, and lastly in clear water. They are then laid upon nets to dry in the air; but if intended to resemble the foreign isinglass, the sounds of cod will only admit of that called *book*, but those of ling both shapes. The thicker the sounds are, the better the isinglass, colour excepted; but this is immaterial to the brewer, who is its chief consumer.

" This isinglass resolves into fining, like the other sorts, in subacid liquors, as stale beer, cyder, old hock, &c. and in equal quantities produces similar effects upon turbid liquors, except that it falls speedier and closer to the bottom of the vessel, as may be demonstrated in tall cylindrical glasses; but foreign isinglass retains the consistency of fining preferably in warm weather, owing to the greater tenacity of its native mucilage.

" Vegetable acids are, in every respect, best adapted to fining: the mineral acids are too corrosive, and even insalubrious, in common beverage.

" It is remarkable, that during the conversion of isinglass into fining, the acidity of the menstruum seems greatly diminished, at least to taste, not on account of any alkaline property in the isinglass, probably, but by its enveloping the acid particles. It is likewise reduced into jelly with alkaline liquors, which indeed are solvents of all animal matters; even cold lime-water dissolves it into a pulpous *magma*. Notwithstanding this is inadmissible as fining, on account of the menstruum, it produces admirable effects in other respects: for, on commixture with compositions of plaster, lime, &c. for ornamenting walls exposed to vicissitudes of weather, it adds firmness and permanency to the cement; and if common brick-mortar be worked up with this jelly, it soon becomes almost as hard as the brick itself; but for this purpose, it is more commodiously prepared, by dissolving it in cold water, acidulated with vitriolic acid; in which case, the acid quits the jelly, and forms with the lime a *selenitic* mass, while, at the same time, the jelly being deprived in some measure of its moisture, through the formation of an indissoluble concrete amongst its parts, soon dries, and hardens into a firm body; whence its superior strength and durability are easily comprehended.

" It has long been a prevalent opinion, that sturgeon, on account of its cartilaginous nature, would yield great quantities of isinglass; but, on examination, no part of this fish, except the inner coat of the sound, promised the least success. This being full of *rugæ*, adheres so firmly to the external membrane, which is useless, that the labour of separating them supersedes the advantage. The intestines, however, which in the larger fish extend several yards in length, being cleansed from their mucus, and dried, were found surprisingly strong and elastic, resembling cords made with the intestines of other animals, commonly called *cat-gut*, and, from some trials, promised superior advantages when applied to mechanic operations."

Isinglass is sometimes used in medicine; and may be given in a thin acrimonious state of the juices, after the same manner as the vegetable gums and mucilages, regard being had to their different disposition to putrescence.

ICHTHYOLOGY.

CHAP. I. HISTORY OF ICHTHYOLOGY.

Definition.

ICHTHYOLOGY (from the Greek ιχθυς, "a fish," and λογος, "discourse,") is that part of zoology which treats of fishes.

Fishes are such animals as have a heart with one auricle and one ventricle, with cold red blood, which inhabit water, and breathe by means of gills. Most of the species are likewise distinguished by fins and scales.

Difficulty of studying fishes.

The very element in which fishes live prevents us from following their motions with exactness, from studying their instincts, and from noting with fidelity their specific differences. Their colours often vary, according to the accidental circumstances of age, sex, climate, season, breeding, &c. and often vanish in the open air, or with the principle of life. On the same shores unknown kinds seldom occur; and when they do, they may pass unnoticed by the illiterate fisherman. Hence, the natural history of the finny tribe has, in all ages, been involved in greater obscurity than that of land animals, which are more readily subjected to the investigation of the learned and the curious. Hence, *Aristotle*, *Pliny*, and *Ælian*, in treating of fishes, have mingled much fable with some truths, and have even confounded classes which nature has distinctly separated. Such, too, is the ambiguity which now attaches to their vague and unscientific nomenclature, and such, we may add, is the indispensable limitation of our plan, that we shall forbear enlarging on the ichthyological portions of their writings. The classical and inquisitive reader may, however, derive entertainment and some instruction from a careful perusal of their text, and of some of the most ingenious and judicious annotations of more recent scholars and naturalists. To the names just mentioned, we may add that of *Athenæus*, who, in the seventh book of his *Deipnosophistæ*, discourses of fishes. *Ovid* celebrates them in his *Halicuticon;* and his example has been followed, not without success, by *Oppian*, a Greek poet, who flourished in the second century, under the reign of Caracalla. *Ausonius*, a native of Bourdeaux, who died towards the conclusion of the fourth century, in his admired poem on the Moselle, has not forgotten to sing of its inhabitants.

Ancient writers on fishes.

Modern.

In the more downward periods of the dark and middle ages, no writer of eminence appears in this department of natural history. Indeed, the first who laid the foundation of ichthyological arrangement was *Pierre Belon*, a French physician, born in 1518, and advantageously known by his travels in Judæa, Greece, and Arabia, as well as by his writings in natural history. Some of his divisions of fishes, as the eleventh, which comprises the flat species that are not cartilaginous; the twelfth, those that are both flat and cartilaginous; the thirteenth, which includes the *squali*, &c. are deduced from natural resemblances; but others are more fanciful; and the wooden cuts are deficient in accuracy and neatness. Belon was an industrious, and rather an acute observer, who wrote with pleasing naïveté, and who should rank high in the estimation of the learned world, when we reflect on the few resources of which he could avail himself. His history of fishes appeared in 1551. That of his countryman, *Rondelet*, was published three years afterwards, and exhibited more accurate descriptions and figures, with many excellent remarks, the result of his own observation. In point of arrangement, however, Rondelet's work is extremely imperfect, and even puerile. He tells us, for example, that, after very mature deliberation, he resolved to begin with the *gilt-head*, because it was *best known to the ancients and moderns, and highly prized for its delicacy.* He had, however, the merit of exciting a general taste for the study of ichthyology; and *Salviani*, *Bossveti*, *Conrad Gesner*, *Pison*, &c. who followed him in rapid succession, contributed their share to the stock of scientific facts, though they made few advances to the construction of a natural order.

History.

Belon.

Rondelet, &c.

In 1605, *Aldrovandus*, who published a large compilation on natural history, distributed the fishes according to the nature of their residence; thus, his first book treats of those that frequent rocks; the second is devoted to the littoral; the third to the pelagian, &c. Several authors, whom we cannot stay to name, displayed their talents, with more or less felicity, on the same subject. But their labours were eclipsed by those of *Willoughby*, whose work, entitled *De Historia Piscium*, was printed at Oxford in 1686, and unfolded many new and accurate notions relative to the anatomy and physiology of fishes. His arrangement may be considered as an improved modification of that of Belon. The celebrated *Ray* published, in 1707, his *Synopsis Methodica Piscium*, which may be regarded as an abridged and corrected view of Willoughby's larger work, and as indicating, if not fixing, a series of genera. This valuable descriptive catalogue continued to be appealed to as a standard, till the combined genius of Artedi and Linnæus effected an important reform in the science of ichthyology.

Aldrovandus.

Willoughby.

Artedi, the countryman and friend of the great Swedish naturalist, had adopted his principles, and was engaged in applying them to the systematic illustration of fishes, when death prematurely arrested the prosecution of his design. His illustrious friend put the finishing hand to his papers, and published them in the form of two octavo volumes, under the title of *Bibliotheca Ichthyologica*, and *Philosophia Ichthyologica*, which Walbaum re-edited, in four volumes, in 1792. Thus, then, to Artedi we may ascribe the merit of having first traced the outlines of that classification of fishes which has now become so popular in Europe; for he first instituted orders and genera, and defined the characters on which these divisions are founded. Independently of the cetaceous tribes, which are now generally classed with the *mammalia*, and of which we have treated in the

Artedi.

His method of arrangement,

History. the article CETOLOGY, his method consisted of four great divisions or orders, namely, the *Malacopterygian*, *Acanthopterygian*, *Branchiostegous*, and *Chondropterygian*. The first denoted those species which have soft fins, or fins with bony rays but without spines, and included twenty-one genera; the second, those with spiny fins, containing sixteen genera; the third, corresponding to the *amphibia nantes* of Linnæus which want the operculum or branchiostegous membrane; and the fourth, the Linnæan *amphibia nantes* which have not true bones, but only cartilages, and the rays of whose fins hardly differ from a membrane. In his first edition of the System of Nature, Linnæus wholly adopted the Artedian method. With regard to the changes which he afterwards introduced, it would be unnecessary to state them in this rapid historical sketch, especially as we purpose to follow his divisions in our systematic exposition.

at first followed by Linnæus.

Those ichthyologists who have proposed methods in opposition to that of Linnæus, have usually fallen short of the latter in point of simplicity. Thus *Klein*, who vainly attempted to rival the professor of Upsala, distributed fishes into three sections, according as they had lungs, and visible or invisible gills; but his subdivisions were so numerous and complex, that his scheme has never been adopted. That of *Gronovius* was, at least for a few years, much more favourably received. It is principally founded on the presence or absence, and the number or the nature, of the fins. The first class includes all the cetaceous animals, and the second all the fishes. The *chondropterygian*, and the *osseous* or bony, form two great divisions; and the osseous are subdivided into *branchiostegous* and *branchial*. These last are grouped according to the Linnæan rules; but, in the formation of the genera, the number of dorsal fins is admitted as a character, which Linnæus has, perhaps injudiciously, overlooked, and which gives rise to several genera which are not to be found in the System of Nature.—*Brunnich* laboured, with much pains and considerable ingenuity, to combine the Linnæan and Artedian divisions; but his system remained without encouragement or support.—*Scopoli* boldly struck out a new path, and assumed the position of the anus as the basis of his three primary divisions. His secondary characters sometimes coincide with those of Gronovius, and sometimes with those of Linnæus; while his third series of distinctions is sometimes drawn from the form of the body, and sometimes from the teeth. *Gouan*, the celebrated professor of botany at Montpelier, preserved the Linnæan genera, but formed his greater divisions from the union of those of Linnæus and Artedi. His two principal sections are, of fishes with complete, and of those with incomplete, gills; and the first is divided into two others, viz. *acanthopterygian*, and *malacopterygian*, in each of which are ranged the *apodal*, *jugular*, *thoracic*, and *abdominal* species. The same process is followed in the second section, which includes the *branchiostegous* and the *chondropterygian*.

Method of Klein

and others.

All the authors who have just passed under our review, with the exception of Belon, Rondelet, and Gronovius, published their works without any regular series of plates illustrative of their descriptions. Among those who embellished their volumes with valuable figures, we have to mention *Seba*, in his large collection of subjects belonging to natural history,—*Catesby*, in his Natural History of Carolina,—*Broussonet*, in his *Ichthyologia*,—and *Bloch*, in his Natural History of Fishes, first published at Berlin in German, and in French in 1785, and recently republished in a small form, by Deterville, at Paris, forming part of the extensive work entitled *Histoire Naturelle de Buffon*, &c. Bloch's original work includes about 600 species of fishes, which are generally described with great accuracy, figured, as nearly as circumstances will admit, of the natural size, and beautifully coloured. The author enters with some minuteness into the history of those which afford food for man, or which suggest facts worthy of remark. He has followed the Linnæan method, and made considerable additions to the number of genera.

History.

La Cépède, the friend and continuator of Buffon, has likewise executed an elaborate and extensive undertaking on the natural history of fishes. He divides this class of animals into two secondary classes, viz. the *cartilaginous* and the *osseous*. Each of these subordinate classes consists of four divisions, taken from the combinations of the presence or absence of the operculum, and of the branchial membrane; thus, the first division of the cartilaginous includes those fishes which have neither operculum nor branchial membrane; the second, those which have no operculum, but a membrane; the third, those which have an operculum, but no membrane; and the fourth, those which have both. The same characters, stated in the inverse order, determine the divisions of the osseous species. Each of these divisions is again distributed into the Linnæan orders, and these, in turn, into the Linnæan genera. The contents of the latter, however, do not always correspond with the enumerations in the System of Nature; for the French zoologist has withdrawn many species from their former categories, and ranged them under new genera. His innovations in this respect are, perhaps, not always improvements; and some of his generic appellations, as *gobie*, *gobiosore*, *gobioïde*, *gobiomore*, and *gobiomoroïde*, *pomacanthe*, *pomacentæ*, *pomadasys*, and *pomatome*, &c. are too nearly allied in sound and orthography, to be readily discriminated by the memory. We have, moreover, to regret that the plates are not coloured, and that they are executed on too small a scale. Yet, after every deduction which even rigid criticism may require from the merits of this publication, enough will remain to attest the industry and the talents of its author, and to justify the high rank which he has obtained among the writers on ichthyology.

Of La Cepede.

Before closing even these very condensed notices, it would be unpardonable to omit reminding our readers, that the British fishes have found an able and entertaining expositor in Mr Pennant, to whom the natural history of this country is under many obligations. In the third volume of his British Zoology, this author describes the fishes under the three great divisions of *cetaceous*, *cartilaginous*, and *bony*. The latter, which is by far the most numerous, he subdivides into four sections, entitled, agreeably to the Linnæan orders, *apodal*, *thoracic*, *jugular*, and *abdominal*.

Of Pennant.

Besides the sources of information to which we have referred, the curious inquirer into the history of fishes may occasionally resort to Duhamel's General Treatise

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on the Fisheries, Fabricius's *Fauna Grœnlandica*, Flamen on the different kinds of fresh-water fishes, Forskal's *Fauna Arabica*, Johnston's *Historia Naturalis de Piscibus et Cetis*, Kolreuter's papers in different volumes of the Petersburg Transactions, the fourth volume of Marsigli's *Danubius Pannonico Mysius*, &c. Monro's Anatomy of Fishes, Pallas's *Spicilegia Zoologica*, &c. Vicq d'Azyr's Memoirs on the Anatomy of Fishes, and the two volumes of the *Encyclopedié Methodique* which are devoted to the article *Poissons*.

Anatomy of Fishes.

CHAP. II. ANATOMY OF FISHES.

Form of the body.

THE *shape* of the body of fishes is subject to considerable varieties. It is said to be *compressed*, when the diameter, from side to side, is less than from back to belly; and *depressed*, on the contrary, when the diameter, from side to side, is greater than from back to belly. It is *cylindrical*, when it is circular in the greater part of its length; *ensiform*, or sword-shaped, when the back and belly terminate in a sharp edge, or when the body gradually tapers from the head to the tail; *cultrated*, or knife-shaped, when the back is somewhat flat, and the angle below acute; *carinated*, or keel-shaped, when the back is rounded, and the under part of the belly acute, through its length; *oblong*, when the longitudinal diameter is much longer than the transverse; *oval*, when the longitudinal diameter not only exceeds the transverse, but the base is circular, and the apex more acute; *orbicular*, when the longitudinal and transverse diameters are nearly equal; *lamellated*, or spear-shaped, when oblong, and attenuated at both extremities; *cuneiform*, or wedge-shaped, when the body gradually flattens towards the tail; *conical*, when it is cylindrical, and grows gradually more slender towards the tail; *ventricose*, when the belly is very prominent; *gibbous*, when the back presents one or more protuberances; *annulated*, when the body is surrounded by rings, or elevated lines; *articulated*, when it is covered with connected and bony plates; *trigon*, *tetragon*, *pentagon*, and *hexagon*, when the sides are plain, with three, four, or six longitudinal angles; if the number of these angles exceed six, it is termed a *polygon*.

The *surface* of the body of fishes is termed *naked*, when it is destitute of scales; *scaly*, when provided with them; *smooth*, when the scales are without angles, furrows, roughness, or inequalities; *lubricous*, or slippery, when invested with a mucus or slimy humour; *tuberculated*, or rough, when covered with prominent warts or tubercles; *papillous*, when covered with fleshy points; *spinous*, when the asperities are elongated, and pointed at their extremities; *loricated*, or mailed, when the body is inclosed in a hard, callous, or bony integument, or in scales so closely united as to seem but one; *fasciated*, or banded, when marked with transverse zones from the back to the belly; *striped*, when marked with very narrow, scattered, and coloured streaks; *vittated*, when marked with longitudinal zones along the sides, from the head to the tail; *reticulated*, or chequered, when marked with lines forming the appearance of net-work; *pointed*, or dotted, when marked with points, either longitudinally disposed, or without order; and *variegated*, when of different colours.

The *parts* of the body are either *external*, or *internal*: the former include the *head*, *trunk*, and *fins*; the latter, the *skeleton*, *muscles*, and *viscera*.

The head, &c.

1. The HEAD is always placed at the anterior part of the body, and reaches from the extremity of the nose to the gills.

Several of the technical terms already defined, are applied to the head as well as to the whole body; but others, which are more appropriate, require to be explained. *Obtuse* or *truncated*, denotes that the head is blunt, or terminated by a transverse line; *acute*, that it terminates in an acute angle; *slanting*, that it presents an inclined plane, from the top of the anterior part to the extremity of the nose; *aculeated*, or prickly, that it is armed with sharp points or spines; *unarmed*, that it is without spines or tubercles; *beardless*, that it is without cirrhi, &c.

The head contains the mouth, nose, jaws, lips, teeth, tongue, palate, nostrils, eyes, branchial opercules, the branchiostegous membrane, the aperture of the gills, and the nape.

The *mouth* is that cavity, which is terminated in front by its own orifice; on the sides, by the branchial opercula; and behind, by the throat. It is *superior*, when placed at the upper part of the head; *inferior*, when at the lower part; *vertical*, when it descends perpendicularly from the upper part; *transverse* or *horizontal*, when it is parallel to the surface of the water when the fish swims; *oblique*, when it is neither vertical nor horizontal; *tubular*, or *fistular*, when the orifice is narrow, round, and deep; *simous*, or flat-nosed, when the orifice is not prominent or deep.

The *nose*, or *snout*, is the fore part of the head, extending from the eyes to the extremity of the jaws. It is *cuspidated* when its apex terminates in a sharp point or bristle; *spatula-shaped*, when its extremity is flattened and extended; *bifid*, *forked*, or *lobed*, when its extremity is divided into two lobes; *triquetrous* and *tetraquetrous*, when it has three or four flat sides; and *reflex*, when it is incurved towards the belly.

The *jaws* are always two in number, and differ in different species chiefly in respect of figure and proportion. They are *subulate*, or awl-shaped, when they are rounded at the base, and are gradually attenuated towards the apex; *carinated*, or keel-shaped, when the lower jaw is longitudinally ridged, either without or within; *equal*, when both are of the same length; *unequal*, when one projects beyond the other; *naked*, when not covered with lips; *labiate*, when covered with one or two lips; *edentulated*, when destitute of teeth; *dentated*, or toothed, when furnished with teeth of unequal size; *dentato-crenated*, when the bones are formed into the appearance of teeth; *cirrated*, or *cirrose*, when furnished with cirrhi, or bristly membranaceous appendages, which hang from one or both jaws; *vaginated*, or sheathed, when the margin of one covers that of the other; *arched*, or covered, when furnished with a membranaceous veil, attached before, and loose behind,

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behind, within which, and the upper or under part of the mouth, the fish lays its tongue, or discharges water from its mouth; and *moveable*, when they can be thrust out or drawn in.

The *lips* are obvious only in a few fishes, and are either of a fleshy or bony consistence. They are also distinguished into *plicated*, or consisting of folds, and *retractile*, or capable of being drawn out or in, at the pleasure of the animal.

The *teeth* are *acute*, when their extremity terminates in a point; *obtuse*, when it is rounded; *granular*, when the teeth are of the size and shape of small grains; *plane*, when flat on the sides; *semi-sagittate*, when hooked on one side only; *serrated*, when toothed like a saw on the margin; *emarginate*, when the extremity is somewhat cleft; *recurved*, when inclined towards the gullet; *parallel*, when of the same direction, length, and figure; *diverging*, when the apices stand wide, or distant from each other; *similar*, when they are all of the same size and figure; *dissimilar*, when some are acute, and others obtuse; *ordinate*, when disposed in one or more rows; *confused*, when crowded, and not disposed in any regular order.

The *tongue* is termed *acute* or *obtuse*, according as its extremity terminates in a point, or is rounded; it is *emarginate*, or *bifid*, when the extremity is divided into two lobes; *carinated*, when angulated on the upper or lower surface; *dentated*, when its surface is furnished with teeth; and *papillous*, when covered with fleshy points.

The *palate* is that part of the mouth which is included between the base of the jaws and the origin of the œsophagus. It is either *smooth*, when its surface is destitute of tubercles, teeth, and asperities; or *denticulated*, when furnished with teeth.

The *nostrils* are orifices, almost always situated in the rostrum, before the eyes. They are *anterior*, when they occupy the fore part of the rostrum, and are somewhat distant from the eyes; *posterior*, when situated at the base of the rostrum, and very near the eyes; *superior*, when on the crown of the head, between the eyes, and close to them; *cylindrical*, when they form a tube; *single*, or *solitary*, when there is only one on each side of the head; and *double*, when there are two on each side.

Eyes.

The *eyes* are always two, and are composed of two principal parts, which as they are visible from without belong to the description of the external structure. These parts are the *pupil* and the *iris*. The first occupies the centre of the globe; and is usually spherical, but sometimes oval; and the second is the coloured circle which surrounds the pupil, and is often furnished with a distinct ring. It is, for the most part, black or gold-coloured, but sometimes it assumes a silvery hue.—The eyes are said to be *covered*, when they are enveloped in the skin, or in a nictitating membrane; *semi-covered*, when this membrane is arched, or lunulated, or perforated like a ring; *naked*, when destitute of nictitating membrane; *vertical*, when situated on the crown of the head; *lateral*, when placed on the sides of the head; *binate*, when they are both on the same side of the head; plane, or *depressed*, when the convexity of the ball does not exceed the surface of the head; *convex*, when the convexity projects beyond this surface; *salient*, when the eyes are very prominent.

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Branchial opercles.

The *branchial opercles*, are scaly or bony processes, situated on both sides of the head, behind the eyes, closing the aperture of the gills, and sustaining the branchial membrane. They are termed *simple*, when composed of a single piece; *diphyllous*, *triphyllous*, or *tetraphyllous*, when consisting of two, three, or four pieces; *flexile*, or *soft*, when they can be easily bent; *sub-arcuated*, when the posterior margin is rounded; *fistulous*, when the branchial opening seems to be excavated out of the substance of the opercula; *acuminated*, when the hinder plate runs out into a sharp process; *ciliated*, when the posterior margin is fringed, or set with membranous setaceous appendages; *frenated*, or *bridled*, when connected with the body by means of a membrane; *scabrous*, when their surface is covered with asperities; *striated*, when marked with hollow and nearly parallel lines; *radiated*, when the lines run like rays, from the centre to the edge; *graved*, when the lines appear in no regular order; *aculeated*, when the posterior margin is terminated by one or more spines; *serrated*, when it is cut like the teeth of a saw; *scaly*, when the surface of the opercles is covered with scabs.

And membranc.

The *branchial* or *branchiostegous membrane*, is a true fin, formed of cartilaginous crooked bones, joined by a thin membrane, lurking under the opercula, to which it adheres, and is capable of being folded or expanded, as necessity requires. This membrane is said to be *patent*, when it projects beyond the margin of the opercula; *retracted* or *latent*, when it is concealed under them; *covered*, when concealed under them, yet so as to be visible without hurting them.

The *aperture of the gills*, is a cleft commonly lateral, which opens between the opercula and the trunk, by means of the gills. It is *arcuated*, or arched, when it represents a crescent; *operculated*, when quite covered by the opercula; *pipe-shaped*, when in the form of a tube. Its place, in some of the cartilaginous species, is supplied by *vents*, or *spiracles*, which are either *round*, *arched*, *lateral*, or *inferior*, i. e. placed underneath the body.

The *nape* is the hind and terminating part of the head, which is attached to the first vertebra of the trunk, in the region of the gills. It is *carinated*, when its surface is sharply angulated; *plane*, when flat, and on a level with the body; and *sulcated*, when ridged or furrowed.

The trunk.

2. The TRUNK is that part of the body, which extends from the nape and branchial aperture, to the extremity of the tail. It comprehends the gills, throat, thorax, back, sides, abdomen, lateral line, anus, tail, and scales.

The *gills*, or *branchiæ*, consist, for the most part, of four crooked, parallel, unequal bones, furnished, on the outer or convex part, with small soft appendages, like the beards of a feather, and generally of a red colour. They are *aculeated*, when the concave or interior part has spines instead of tubercles; *anomalous*, when some are ciliated, others tuberculated, or of a different structure: *denuded*, when wanting opercles, the branchiostegous membrane, or both; *pectinated*, when the convex or exterior part, towards the branchial aperture,

is

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is furnished with red setaceous rays, or lamellæ; *withdrawn*, when not conspicuous, lying nearer the throat than the aperture; *simple*, when furnished either with filaments or tubercles; *approaching*, when they correspond to the same aperture.

The *throat* is that part which corresponds to the branchial apertures, and is placed between them. It is *swelling*, when it exceeds the level of the body and the head; *carinated*, when angulated underneath; *plane*, when on a level with the thorax and head.

The *thorax* is that part which begins at the extremity of the throat, and is terminated by a line drawn to the insertion of the pectoral fins.

The *back* is the upper part of the trunk, extending from the nape to the origin of the tail. It is *apterygious*, without fins; *monopterygious*, *dipterygious*, &c. with one, or two fins; *convex*, higher in the middle than toward the sides; *serrated*, having a deep longitudinal furrow for the same purpose.

The *sides* are that part of the trunk, which reaches from the gills to the anus, between the back and the abdomen. They are sometimes marked with zones, lines, spots, or points.

The *abdomen* is the under part of the trunk, between the posterior extremity of the thorax and the origin of the tail. It is *carinated*, or *acute* through its length; *serrated*, when the scales forming the carina are disposed like the teeth of a saw; *plane*, when without prominence or depression.

The *lateral line* usually commences at the extremity of the branchial opercles, runs along the sides, and terminates at the caudal fin. It is formed by lines, dots, or small tubercles. It is *straight*, when it presents no inflexion through its length; *curved*, when it inclines to the back or belly; *broken*, when divided into two or more parts, which follow different directions; *obliterated*, when scarcely perceptible; *double*, when there are two on each side; *smooth*, when without prickles or tubercles: *aculeated*, when furnished with spines; *descending*, when it runs obliquely from the head to the tail; *inferior*, when situated on the lower part of the side; *loricated*, or *mailed*, when rough with small bones, or bard scaly tubercles; *mean*, when situated in the middle of the side; *obsolete*, when nearly effaced; *porous*, when punctured with small holes; *sinuous*, when bent in a waving line; *solitary*, when there is one line on each side; *superior*, when on the upper part of the side, near the back; *banded*, when covered with a longitudinal zone, coloured or silvery.

The *anus* is the external orifice of the rectum. It is *jugular*, when situated under the branchial opercles; *pectoral*, when under the gills; *mean*, when equally removed from the head and extremity of the tail; *remote*, when near the tail.

The *tail* is the solid part of the trunk, which it terminates, being situated behind the anus. It is *round*, as in the lamprey and eels; *carinated*, when its surface presents some sharp angle; *muricated*, when beset with spines or tubercles; *apterygious*, when destitute of fins; *dipterygious*, when the fin is divided at the base.

The *scales* are pellucid, cartilaginous, or horny teguments, which usually cover the trunk. They are *oval*, when one extremity is rounded, and larger than the other; *orbiculate*, when nearly round; *smooth*, when destitute of sensible angles or asperities; *ciliated*, when the margin is set with setaceous processes; *serrated*, when the margin is toothed like a saw; *imbricated*, when the scales partly cover one another, like tiles on a roof; *rare*, when sensibly separated from one another; *deciduous*, when they easily fall off; *tenacious*, when they are detached with difficulty; *remote*, when separated from one another; *verticillate*, when surrounding the body in rings.

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3. The FINS consist of several rays connected by a tender film, or membrane; and they are raised, expanded, or moved in various directions, by means of appropriate muscles. The rays of the fins are either jointed and flexible small bones, whose extremity is often divided into two parts; or hard and prickly, without division at the extremity. In some cases, those on the back of the fish are furnished with membranaceous appendages, simple, or palmated, and adhering to the apex or sides.—The fins, according to their position, are denominated *dorsal*, *pectoral*, *ventral*, *anal*, or *caudal*.

Fins.

The *dorsal* fins are situated on the upper part of the body, between the head and the tail. Their number varies from one to three, and so gives rise to the epithets *monopterygious*, *dipterygious*, and *tripterygious*. If the back has no fin, it is said to be *apterygious*. The form, size, and situation of the dorsal fins have likewise suggested various technical appellations; but few of these require to be particularly defined. We shall notice, therefore, only the *fleshy*, which are covered with a thick skin, or muscular substance; and the *ramentaceous*, which are furnished with membranaceous or filamentous appendages.

The *pectoral* fins are situated on each side, about the aperture of the gills. In some species, they are wanting; in others, *solitary*, or one on each side; in a few they are *double*, i. e. two on each side; in some, they are *falcated*, or arched above, and concave below.

The *ventral* or *inferior* fins are always placed on the under part of the fish; but at a greater distance from the mouth. They are *abdominal*, when placed in the belly, behind the pectoral fins, and not fixed in the sternum, but in the ossa pelvis; *difform*, when they have a spine or cirrhus, besides the ossicles; *jugular*, when placed under the throat before the pectoral fins, and fixed to the clavicles; *multiradiated*, when they have several rays, though seldom exceeding seven; *thoracic*, when placed under the pectoral fins, often a little behind them, but always fixed to the sternum.

The *anal* fin is placed between the anus and the caudal fin. It is *bifurcated*, or *two-forked*, when the ossicles in the middle are shortest; *coalescing*, when united with the caudal fin; *longitudinal*, when it extends from the anus to the tail; *posterior*, when placed at the end of the tail, near the caudal fin.

The *caudal* fin is situated vertically, at the extremity of the body. It is *equal*, or *entire*, when its rays are of equal length; *lanceolated*, when the rays in the middle are longer than the others; *emarginate*, when they are shorter than the others; *bifid*, when they are very short; *trifid*, when the fin is divided into three lobes; *coalescing*, when united with the dorsal and anal fins; *cuspidated*, when attenuated at the apex, or terminating in a setaceous point; *setiferous*, when a filiform appendage proceeds from the division.

Interna

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Internal Parts.

Skeleton.

1. The SKELETON of a fish is the assemblage of bones which constitutes the frame-work of its body. The number of these bones is not uniform in each individual, but varies according to age and species. They may be conveniently divided into those of the head, thorax, abdomen, and fins.

The *head* contains a considerable number of bones; that of the perch, for example, has eighty. As the limited nature of our plan precludes minute specification, we shall indicate only a few of the most important. The *skull* covers the whole head, its sides frequently forming the sockets of the eyes, the temples, and the cheeks. The upper and lower *jaw-bones* are placed on the fore part of the head. The upper is more or less of an arched form. In some fishes it is wanting, and its place is supplied by a portion of the skull. The lower jaw is usually arched or triangular, and its length regulates that of the snout, or rostrom. The *bones of the palate* are, for the most part, four, viz. two on each side of the fauces, oval, and nearly plane, often crowded with teeth, or rough with tubercles, or furrowed transversely, the base of the one connected with the apex of the other. The gills are attached to these ossicles on each side by a cartilage. The *opercular* bones are situated at the hind part of the jaws, on each side of the head, and behind the eyes. In some species, they form a part of the upper jaw. The *hyoid* bone is an ossicle situated between the two sides of the lower jaw, serving as a basis for the tongue, presenting the figure of a V, and occasionally furnished with a hook.

The *thorax* is a cavity principally formed by the vertebræ, the sternum, the clavicles, and the scapulæ. The *vertebræ* form the back-bone, which reaches from the skull to the extremity of the tail. They are stronger and thicker towards the head, and grow weaker and more slender towards the tail. Each species has a determinate number of vertebræ, which grow with the body. They are furnished with transverse and spiny processes, the former of which are marked by transverse lines, by the number of which, it is supposed, the age of fishes may be known. The spinal marrow is contained in the canal which passes through the vertebræ. The *sternum* in fishes is not cartilaginous, as in other animals, but always bony. Its form varies considerably, being sometimes triangular, sometimes rounded before, and pointed behind, but most frequently of a rhomboidal figure. It occupies the fore part of the thorax, and closes that cavity. The *clavicles* are two bones situated transversely behind the opening of the gills; and are sometimes formed by two ossicles united. They are attached to the first vertebra. The *scapulæ* are two flat, rhomboidal, or arched bones, situated on the lateral side of the body, under the posterior margin of the clavicles, and serving as a base to the pectoral fins. When the scapulæ are wanting, the pectoral fins are attached to the sternum, or to the margin of the clavicles.

The *abdomen* forms a cavity always larger than that of the thorax, extending from the extremity of the latter to the anus. It is encompassed by the ribs and the *ossa pelvis*. The *ribs* are bony arches, situated obliquely on the lateral parts of the abdomen, having their upper extremity articulated with the extremity of the transverse processes of the vertebræ. Their number is very variable. In those species which are without ribs, the absence of the latter is compensated by the length and direction of the transverse processes of the vertebræ. The *ossa pelvis* are two bones which defend the viscera contained in the abdomen. The ventral fins are usually attached to their posterior margin. When these fins are wanting, or when they are attached under the throat, or on the thorax, the *ossa pelvis* are also wanting. The *tail* is composed of certain bones, which terminate the vertebral column. The processes of each vertebra of the tail are incident to great variety in respect of number and dimensions.

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The *fins* are formed of a certain number of ossicles, connected to one another by firm membranes. The dorsal and anal fins are supported by the *inter-spinous bones* (*ossa interspinosa*), which lie between the pointed processes of the vertebræ, and are connected with them by a ligament. The rays of the anal fin have nearly the same conformation as those of the dorsal.

Muscles.

2. The MUSCLES are an assemblage of small bundles of fleshy fibres, partly red, and partly whitish, enveloped in a common membrane. The first of these is called the *fleshy portion of the muscle*, the second, the *tendon*. Each muscle, thus composed, is susceptible of contraction and dilatation. The former is accompanied by a visible swelling, hardening, wrinkling, and shortening of the muscle, and the latter by its elongation, expansion, and recovery of its former softness and flexibility. Its force, in general, depends on the quantity of fibrous matter which enters into its composition, and its moving power on the length and size of the fibres. The muscles vary much in respect of number, size, and situation. There are two which proceed from the head to the tail, along the sides of the body, and thence denominated *lateral muscles*. Each of these seems to be composed of several transverse muscles, which are similar and parallel. There are four situated at the caudal fin, namely, three superior, and one inferior. Of the two former, one is straight, and two are oblique. The fourth occupies the half of the lower extremity of the tail. There are likewise four at each pectoral fin, namely, two *erectors* and two *depressors*; the two former situated on the external surface of the clavicles and scapulæ, and the two latter under these parts. Each ventral fin has three muscles, one erector and two depressors; the first placed over the whole external surface of the *os pelvis*, and the two latter on the internal surface of the same part. The *carinal* muscles of the back and tail are slender, and closely united, occupying the space that is left between the lateral muscles. Their number is always proportioned to that of the dorsal fins. Fishes, for example, which have no dorsal fin, have but one pair of carinal muscles, those which have one dorsal fin, have two pairs, and those which have two dorsal fins, have three pairs, viz. one pair between the first and second fin, another between the two fins, and a third between the second dorsal and the caudal fin. The *proper inter-spinous* muscles are those whose office it is to raise or depress the dorsal and anal fins. Each inter-spinous ray is furnished with four, two erectors, and two depressors. The dilating muscle of the branchiostegous membrane is small, and attached by its anterior extremity, partly under the angle of the lower

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lower jaw, and partly to the sides of the *os pelvis*. It is fixed to the branchial membrane by as many tendons as there are tendons in the membrane.

Brain and other organs.

3. ORGANS and VISCERA.—The *brain* of fishes is a very small organ, relative to the size of the head. It is divided into three equal lobes, of which the two anterior are contiguous; the third being placed behind, and forming the *cerebellum*. These three lobes are surrounded by a frothy matter, resembling saliva. In this region the optic and olfactory nerves are easily discovered.

The *œsophagus*, or *gullet*, begins at the bottom of the throat, and descends, in a straight line, to the upper orifice of the stomach. It is membranous, smooth, and lined with a mucous humour.

The *stomach* is a membranous sack, sometimes cylindrical or spherical, and sometimes divided into two lobes.

The *swimming*, or *air-bladder*, or *sound*, is an oblong, white, membranous bag, sometimes cylindrical, sometimes elliptical, and sometimes divided into two or three lobes, of different lengths. It is usually situated between the vertebræ and the stomach, and included within the *peritonæum*. In some fishes it communicates with the stomach, and in others, with the œsophagus. The flat fishes are unprovided with this organ.

The *intestines*, which in man are placed transversely, have a longitudinal position in fishes, and are all connected with the substance of the liver. They are in general very short, making only three turns, the last of which terminates in a common outlet or vent. The appendices, or secondary intestines, are very numerous, composing a groupe of worm-like processes, all ultimately terminating in two large canals, opening into the first intestine, into which they discharge their peculiar fluid.

The *liver* is commonly of a yellowish colour. It is situated on the right or left side, or in the anterior region of the abdomen, of whose cavity it fills about two-thirds. It is sometimes simple, and sometimes divided into two, three, or more lobes. It usually contains a large portion of oil or fat.

The *gall-bladder* is oval or oblong, and lies under the right side of the liver. It communicates with the stomach or the intestines, by means of the cystic duct and the choledochic canal.

The *spleen* varies in form and position. Sometimes it is all of a piece; sometimes divided into many lobes, which adhere only by very slender filaments. In some individuals it is black, in others it has the red hue of clotted blood. It is placed near the backbone, and at a place where it is subject to an alternate constriction and dilatation, from the pressure of the air-bag, which is situated in its neighbourhood.

Almost all fishes are provided with the *urinary bladder*. Its form is nearly oval. It terminates under the tail; and has no communication with the rectum.

The *kidneys* are two flat bodies, of a pyramidal form, as long as the abdomen, and of a reddish colour. They are attached to the vertebræ, separated from the cavity of the abdomen by the *peritonæum*, and frequently prolonged from the diaphragm to the region of the urinary bladder.

The *diaphragm* is a white and shining membrane which separates the thorax from the abdomen. This partition is partly fleshy and partly tendinous.

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The *peritonæum*, or membrane investing the contents of the abdomen, is thin and of a blackish colour.

The *ova*, in the females, are disposed into two large oblong bodies, one on each side of the abdomen; and the *milt* or *soft-roe*, in the male, appears in a similar form in the same part.

The *pericardium* is a small bag which contains the heart.

The *heart* is a viscus situated on the sternum, under the posterior gills. It varies considerably in form, being sometimes flat, frequently triangular or pyramidal, &c. Its position is not transverse, as Artedi has alleged, but longitudinal, as in quadrupeds. It consists of one ventricle and one auricle. The sides of the former are rugose, and exhibit may small cavities. The latter is a very slender muscular bag, with a larger cavity than that of the ventricle, and forming the communication between the heart and

The *venous sinus*. The capacity of this last is still greater than that of the auricle. Its position is transverse, corresponding to that of the diaphragm. It communicates with the auricle by a large aperture, and receives at the other end three large trunks of veins.

The *aorta* is an artery attached to the apex of the heart, and sending out numberless branches to the gills, on which it is subdivided into ramifications so minute as to escape the eye unless assisted by a glass.

The *blood* of fishes is red, and the red particles are not round as in the mammalia, but oval as in the amphibia.

Dr Monro's elaborate description of the *absorbent system* in fishes, is thus stated by Dr Shaw in the fourth volume of his *General Zoology*.

"On the middle of the belly, immediately below the outer skin, a lymphatic vessel runs upwards from the vent, and receives branches from the sides of the belly and the fin below the vent; near the head this lymphatic passes between the two pectoral fins, and having got above them, receives their lymphatics: it then goes under the juncture of the two bones which form the thorax, where it opens into a net-work of very large lymphatics which lie close to the pericardium, and almost surrounds the heart: this net-work, besides that part of it behind the heart, has a large lymphatic on each side, which receives others from the kidney, runs upon the bone of the thorax backwards, and when it has got as far as the middle of that bone, sends off a large branch from its inside to join the thoracic duct; after detaching this branch, it is joined by the lymphatics of the thoracic fins, and soon after by a lymphatic which runs upon the side of the fish; it is formed of branches, which give it a beautiful penniform appearance. Besides these branches, there is another set lying deeper, which accompanies the ribs; after the large lymphatic has been joined by the above-mentioned vessels, it receives others from the gills, orbit, nose, and mouth: a little below the orbit another net-work appears, consisting in part of the vessels above described, and of the thoracic duct: this net-work is very complete, some of its vessels lying on each side the muscles of the gills, and from its internal part a trunk is sent out, which terminates in the jugular vein.

"The lacteals run on each side of the mesenteric arteries,

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teries, anastomosing frequently across those vessels: the receptacle into which they enter is very large in proportion to them, and consists at its lower part of two branches, one of which lies between the duodenum and the stomach, and runs a little way upon the pancreas, receiving the lymphatics of the liver, pancreas, lower part of the stomach, and the lacteals from the greatest part of the small intestines: the other branch of the receptacle receives the lymphatics from the rest of the alimentary canal. The receptacle formed by these two branches lies on the right side of the upper part of the stomach, and is joined by some lymphatics in that part, and also by some from the sound and gall-bladder: the thoracic duct takes its rise from the receptacle, and lies on the right side of the œsophagus, receiving lymphatics from that part; and running up about half an inch, divides into two ducts, one of which passes over the œsophagus to the left side, and the other goes strait upon the right side, passing by the upper part of the kidney, from which it receives some small branches, and soon afterwards is joined by a branch from the large lymphatic that lies above the bone of the thorax, as formerly mentioned: near this part it likewise sends off a branch to join the duct of the opposite side; and then, a little higher, is joined by those large lymphatics from the upper part of the gills and from the fauces.

"The thoracic duct, after being joined by these vessels, communicates with the net-work near the orbit, where its lymph is mixed with that of the lymphatics from the posterior part of the gills, and from the superior fins, belly, &c. and then from this net-work a vessel goes into the jugular vein just below the orbit. This last vessel, which may be called the termination of the whole system, is very small in proportion to the net-work from which it rises; and indeed the lymphatics of the part are so large as to exceed by far the size of the sanguiferous vessels.

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"The thoracic duct from the left side, having passed under the œsophagus from the right, runs on the inside of the vena cava of the left side, receives a branch from its fellow of the opposite side, and joins the large lymphatics which lie on the left side of the pericardium, and a part of those which lie behind the heart, and afterwards makes, together with the lymphatics from the gills, upper fins, and side of the fish, a net-work, from which a vessel passes into the jugular vein of this side: in a word, the lymphatics of the left side agree exactly with those of the right. Another part of the system is more deeply seated, lying between the roots of the spinal processes of the back-bone. This part consists of a large trunk that begins from the lower part of the fish, and as it ascends receives branches from the dorsal fins and adjacent parts of the body: it goes up near the head, and sends a branch to each thoracic duct near its origin."

CHAP. III. PHYSIOLOGY AND HABITUDES OF FISHES.

MOST of the observations which belong to this section may be referred to the general topics of *respiration*, *external senses*, *motion*, *nourishment*, *reproduction*, and *duration*.

1. *Respiration.*

Respiration performed by gills.

This important animal function is performed, in fishes, by means of gills, which supply the place of lungs. Though all fishes live in water, the presence of air is not less necessary to their existence than to our own. If a carp, for example, be put into a large vase of water, from which the air is extracted by the air-pump, a number of bubbles are observable on the surface of the fish's body; soon after, the animal breathes swifter and with greater difficulty; it then rises to the surface to get more air; the bubbles on its surface begin to disappear; next, the belly, which was swollen, will suddenly fall, and the fish sink to the bottom, convulsed and expiring. For the same reason, if the external air be excluded from a small pond by a sufficient and durable covering of ice, the fish within it will be killed: or if a hole be made in the ice, before it be too late, they will all come near it for a fresh supply of air. In ordinary cases, a fish in the water first receives a quantity of that element by the mouth, from which it is driven to the gills; these close and prevent the water so swallowed from returning by the mouth, at the same time that their bony covering prevents it from passing through them, until the proper quantity of air has been drawn from it. The covers then open, and give it a free passage: by which means the gills also are again opened, and admit a fresh body of water. Should the free play of the gills be suspended, or their covers kept from moving, by a string tied round them, the fish would soon fall into convulsions, and die in a few minutes. Though the branchial apparatus be comprised in a small compass, its surface, if fully extended, would occupy a very considerable space, since that of the common skate is equal to the surface of the human body. This single fact may convince us of the numberless convolutions and ramifications in which the included water is elaborated and attenuated in the course of given out its air in the respiratory process. This process, in fishes, as in the human subject, is carried on during sleep, and is repeated about twenty-five times in a minute.

Change produced by it on the air.

Atmospheric air, though in small quantities, is thus imparted to the blood at the ramifications of the gills, without, however, depriving it of a large share of the hydrogenated and carbonized substances furnished by the aliments; and, consequently, without communicating to it so much of the vermilion tinge as is observable in warm-blooded animals with lungs. Hence the oily quality of the blood of fishes, and the greasy congestions which take place in their livers, and in the abdominal regions of animals whose respiration is slow or scanty. The act of breathing is, in reality, a species of combustion; and the temperature of animals, in whose system this combustion is imperfectly performed, is necessarily low. As that of fishes is little elevated above the mean temperature of water, some species, as eels and gudgeons, are occasionally benumbed by the winter's cold, and remain concealed in the mud or sand, without motion, food, or breathing, till the warmth of spring rouses them from their torpor. At

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the bottom of the sea, however, probably preserves a pretty equal degree of heat at all times, the myriad tribes which inhabit it are permanently secured against the inclemency of the season. The tardy circulation of the blood in fishes may likewise, in some measure, depend on their mode of respiration. The heart of the carp contracts only thirty-six times in the course of a minute, or about half as often as that of a man. In the carnivorous species of fishes, as the shark, pike, salmon, &c. the heart is comparatively larger, the circulation more rapid, and the breathing more powerful. Active, robust, and courageous, they are also less encumbered with fat, and their liver is less bulky than in the other species. It deserves to be remarked, however, that the blood in fishes, after being thrown by the heart into the ramification of the gills, is collected again by a vast number of small veins, somewhat in the same manner as in the mammalia; but instead of returning to the heart again, these vessels unite and form a descending aorta, without the intervention of an auricle and ventricle, a circumstance which may also materially contribute to the slowness of the circulation. For some time it was believed, that the cartilaginous fishes were provided with internal lungs, an idea which has been abandoned by later physiologists, who have proved, that the supposed lungs are only a peculiar modification of gills. To the want of lungs we may ascribe the want of voice: for, though some kinds of fishes, as those of the genus *balistes*, when seized, discharge a quantity of air and water with a rustling noise, and the rubbing of the fins on the scales sometimes produces an indistinct rattling sound; yet both are very different from any thing like audible language that can be understood among the individuals of a species.

2. *External Senses.*

Sense of seeing.

That fishes possess the faculty of *seeing*, is evident from the accuracy with which they direct their motions to the objects of their pursuit. Their organs of vision, too, are admirably adapted to the circumstances of their condition. As their eyes are not placed in the forepart, but in the sides of the head, they cannot look, at the same time, with both on one object, so conveniently as quadrupeds. Their optic nerves, accordingly, are not confounded with one another, in their middle progress betwixt their origin and the orbit, but the one passes over the other without any communication; so that the nerve which comes from the left side of the brain, goes distinctly to the right eye, and *vice versa*. As fishes are continually exposed to injuries in the uncertain element in which they reside, and as they are in perpetual danger of becoming a prey to the larger ones, it was necessary that their eyes should never be shut; and as the cornea is sufficiently washed by the element in which they live, they are not provided with eyelids; yet, as in the current itself, the eye must be exposed to several injuries, it is defended by a firm pellucid membrane, being a continuation of the same transparent cuticle which covers the rest of the head, and which, being insensible and destitute of vessels, is not liable to obstructions and opakeness. We may likewise observe, that the optic nerve and crystalline lens are larger than in other animals, that the choroides is composed of two separate membranes, and that all these parts are differently modified and arranged, according to the manners and habits of different species. Those fishes which undertake long voyages, and traverse much space in a short time, as the trout, salmon, salvelin, &c. have the conformation of the eye like that of birds; whose sight is very acute. Were we, indeed, to form our judgement of the power of vision in fishes merely from the external appearance of their eyes, we should conclude, that it is far from perfect, and that the small convexity of the cornea would occasion very little refraction in the rays of light; but this defect is sufficiently compensated by the structure of the crystalline lens, which is almost spherical, and more dense than in terrestrial animals. In its natural state, it is transparent, and not much harder than a jelly; and it forms that little hard pea-like substance which is found in the eyes of fishes after boiling. As the rays fall on this convex humour, they undergo a powerful refraction, gradually approach one another, and unite at the axis of the eye, where they form their impressions. In most fishes the eyes are naked; but those of the skate tribe are distinguished by a digitated curtain, which hangs over the pupil, and which may exclude the light when the animal rests; and, in the genera *Gadus* and *Blennius*, the eyes are covered with an internal nictitating membrane.

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Hearing.

That fishes possess the sense of *hearing*, has been alternately maintained and denied by the most celebrated naturalists, since the days of Aristotle. Among the moderns, Artedi, Linnæus, and Govan have contended for the non-existence of this faculty, although some very ordinary facts naturally lead to an opposite conclusion. It is well known that fishes are affected by noise, and that they seem to be alarmed at loud explosions. On the coast of Britanny, they are frequently chased into nets by the sound of a drum; in China, by that of the *tam-tam*; and in ponds, they have been taught to assemble at the ringing of a bell. These sounds, however, it has been alleged, produce certain changes or vibrations in the water, which are *seen* by the animals, or which affect them in some way different from acting on the organ of hearing, an organ which naturalists and anatomists had long laboured in vain to discover. As the eruptions of Etna are sometimes *felt* at Malta, and an earthquake will sometimes visibly agitate the sea, at the distance of many leagues, it is supposed that smaller commotions in the atmosphere may communicate similar impressions to the finny tribes, independently of the medium of hearing. The laborious Klein spared no pains in searching for some hidden organ, by which he hoped to demonstrate that fishes are not more destitute of the faculty of hearing than other animals; but though his investigations proved fruitless, we are indebted to him for many curious observations on the number and figure of the small bones which are to be found in the head of various species. Geoffroy also made some important discoveries, but without arriving at decisive results. At length, the abbé Nollet proved, that water is a conductor of sound, and that even the tones and articulation of the human voice may be transmitted through its medium. All that now remained to set the question completely at rest, was to detect the parts of the auditory organ in fishes, and these the celebrated Camper has distinctly revealed in consequence of numerous dissections. For his particular description of the figure and mechanism

of

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of the whole apparatus, we must refer our readers to the seventh volume of the Haerlem Memoirs, and to a paper which he has inserted in one of the volumes of the *Journal des Sçavans Etrangers*. Suffice it for the present to note, that this curious organ is contained in the cavity of the head, and that it consists of three semicircular, cartilaginous canals, and an elastic bag, which includes one or two very moveable ossicles, floating in a jelly more or less thick, and slightly adhering to the contiguous parts. The moment that the vibration of the water, which is analogous to that of the air, is communicated to the fish's head, the impression is transmitted to the ossicles, which, acting in the ratio of their mass multiplied by the force of the impulse, impart their movement to the hole of the elastic bag and to the semicircular canals. The sentient principle is more or less alive to the action of the ossicles on the nerves, that is to say, in Camper's own language, "that the fish perceives sound, but sound peculiar to the watery element." Hunter, who observed the same organs in the head of fishes, remarks that their structure varies in different species. His minute and ingenious observations on this subject are published in the 77th volume of the Philosophical Transactions. "Fishes, particularly of the skate kind, (says Dr Shaw) have a bag at some distance behind the eyes, which contains a fluid, and a soft cretaceous substance, and supplies the place of the vestibule and cochlea: there is a nerve distributed upon it, similar to the *portio mollis* in man: they have semicircular canals, which are filled with a fluid, and communicate with the bag: they have likewise a *meatus externus*, which leads to the internal ear. The cod-fish, and others of the same shape, have an organ of hearing somewhat similar to the former; but instead of a soft substance contained in the bag, there is a hard cretaceous stone."

Touch.

The sense of *touch* is probably very imperfect in fishes, because it results from the contact and immediate application of the surface of some object to that of the animal, and all parts of the body are not equally fit to be applied to the surface of foreign substances. The hand alone, which is divided into several flexible and moveable parts, and is capable of being applied to different portions of the same surface, at the same time, seems peculiarly destined to convey the ideas of size and form; and even *it* would ill discharge such an office, if its contact with objects should be intercepted by any intermediate substance, as hair, feathers, shells, scales, &c. A rough and hard skin blunts the sense of touch, while a fine and delicate one renders it more lively and exquisite. Hence, we may presume, that fishes, which are destitute of palmated extremities, are incapable of recognizing the forms of bodies. Besides, as they are invested with a rough skin, which is frequently covered with tubercles, or numberless scales, they appear to be unsusceptible of that delicacy of feeling which nature has bestowed on many of the quadrupeds.

Taste.

In the mouth of man, and of those animals which are endowed with sensibility of *taste*, there are numberless nervous papillæ, large, porous, constantly supplied with an abundance of lymph, and covered with a delicate skin, or inserted in sheaths of very unequal lengths. The savorous matters are arrested by these asperities, diluted by the lymph, and absorbed by the pores, which convey them to the nervous papillæ, on which they act as stimulants. The tongue is the principal seat of this system of organs, and is extremely susceptible of impression, being composed of fleshy fibres, encompassed by a medullary tissue. In fishes, however, few pores have been discovered in the interior region of the mouth, the lymph is constantly carried off by the passage of the water, the tongue is sometimes imperfect and sometimes cartilaginous, and the palate is generally hard and bony. If to these circumstances we add the want of mastication, we may justly infer, that fishes are nearly destitute of the discriminating powers of taste. Accordingly, they are remarked for voracity, rather than for particular relishes; and they will often swallow substances which can afford them no nourishment.

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Smelling.

The organ of *smelling*, on the other hand, is large; and the animals have a power of contracting and dilating the entry to it as they have occasion. All have one or more nostrils; and even those which have not the holes perceptible without, yet have the proper formation of the bones for smelling within. The olfactory nerves, which are extended over the nostrils, are probably the instruments by which they are enabled to distinguish their food. A fish will discover a worm that is thrown into the water, at a considerable distance; and that this is not done by the eye, is manifest from the consideration, that after the same worm has remained for some time in the water, and lost its smell, no fishes will come near it; but if you make several little incisions into it, so as to let out more of the odoriferous effluvia, the creatures again approach it. "We may frequently observe them (says the intelligent naturalist quoted above), allowing themselves to be carried down with the stream, that they may ascend again leisurely against the current of the water; thus the odoriferous particles swimming in that medium, being applied more forcibly to their organs of smell, produce a stronger sensation."

3. *Motion.*

Motions of fishes extremely rapid.

Most fishes present us with the same external form, being sharp at either end, and swelling in the middle, whereby they are enabled to traverse their native fluid with greater ease and celerity. We wisely endeavour to imitate this peculiar shape in the construction of vessels designed to sail with the greatest swiftness; yet, the progress of a machine moved forward in the water by human contrivance, is nothing to the rapidity of an animal formed to reside in that element. The large fishes are known to overtake a ship in full sail with the greatest ease, to play round it without effort, and to outstrip it at pleasure. The flight of an arrow is not more rapid than the darting of a tunny, a salmon, or a gilt-head, through the water. It has been calculated that a salmon will glide over 86,400 feet in an hour, and 24 feet in a second, that it will advance more than a degree of the meridian of the earth in a-day, and make the tour of the world in the course of some weeks. Every part of the body seems exerted in this dispatch; the fins, the tail, and the motion of the whole back-bone assist progression; and it is to that flexibility of body which mocks the efforts of art, that fishes owe their great velocity.

Instruments of motion.

The chief instruments in a fish's motion are its fins, air-bladder, and tail. With at least two pair, and three single

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single fins, it will migrate with great rapidity, and take voyages of a thousand leagues in a season, without indicating any visible symptoms of languor or fatigue. But it does not always happen, that fishes which have the greatest number of fins, have also the swiftest motion: the shark, for example, which is reckoned one of the swiftest swimmers, wants the ventral fins; while the haddock, which has its full complement of fins, is more tardy in its progress.

The fins serve not only to assist the animal in progression, but in rising or sinking, in turning, or even in leaping out of the water. To answer these purposes, the pectoral fins, like oars, serve to push the animal forward, and have, therefore, not unaptly, been compared to the wings of a bird. By their help and continued motion, the flying-fish is sometimes seen to dart out of the water, and to fly above a hundred yards. The pectoral fins likewise serve to balance the head, when it is too large for the body, and prevent it from tumbling prone to the bottom, as happens to large-headed fishes, when the pectoral fins are cut off. The ventral fins which lie flat in the water, in whatever situation the fish may be, serve rather to raise or depress the body, than to assist its progressive motion. The dorsal fin acts as a poiser, in preserving the animal's equilibrium, at the same time that it aids the forward movement. The anal is designed to maintain the vertical or upright position of the body.

By means of the air-bladder, fishes can increase or diminish the specific gravity of their body. When they contract it, or press out the included air, by means of the abdominal muscles, the bulk of the body is diminished, its weight in proportion to the water is increased, and the fish swims easily at a great depth. On relaxing the operation of the abdominal muscles, the swimming-bladder again acquires its natural size, the body increases in bulk, consequently becomes lighter, and enables the fish to swim easily near the surface. So fishes which have no air-bladder, or those whose bladder has been injured, keep always at the bottom.

Lastly, the tail may be regarded as the directing instrument of motion, to which the fins are only subservient. To illustrate all this by a simple experiment —If we take a live carp, and put it into a large vessel, the fish, when in a state of repose, will be seen to spread all its fins, and to rest on the pectoral and ventral near the bottom; and, if it fold up either of its pectoral fins, it will incline to the side on which the folding takes place. When it desires to have a retrograde motion, striking with the pectoral fins, in a contrary direction, effectually produces it. If it desires to turn, a blow from the tail sends it about; but if the tail strike both ways, the motion is progressive. If the dorsal and ventral fins be cut off, the fish reels to the right and left, and endeavours to supply its loss by keeping the rest of its fins in constant exercise. If the right pectoral fin be cut off, the fish leans to that side; and, if the ventral fin on the same side be cut away, it loses its equilibrium entirely. When the tail is removed, the fish loses all motion, and abandons itself to the impulse of the water.

The slimy glutinous matter which is secreted from the pores of most fishes, not only defends their bodies from the immediate contact of the surrounding fluid, but facilitates their progressive motion.

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The pelagian tribes of fishes, which traverse large portions of the ocean, as the salmon, tunny, and several species of *coryphæna*, *gadus*, *sparus*, *sciæna*, &c. are furnished with large and strong fins, to enable them to struggle against large waves and rapid currents; whereas those which frequent the shores and fresh waters have their fins smaller and weaker; while those with soft fins seldom expose themselves to the fury of the storm, and confine themselves to depths that are not affected by the most impetuous winds. A more ample explanation of these particulars will be found in Borelli's work *de Motu Animalium*.

Notwithstanding the astonishing agility of their movements, fishes often remain in a state of inactivity and supineness, till roused by the calls of hunger or love, or stimulated by the dread of an approaching enemy. The periodical and extensive migrations of certain tribes of fishes are not irreconcileable with this remark, since the want of food, or the important occupation of breeding, may induce them to change their station. But we cannot give implicit credit to the relations of those naturalists, who, copying from one another, affect on this subject the language of wonder and mystery. In regard to the reputed migrations of immense shoals of herrings from the polar regions to the south of Europe, and which have been generally ascribed to the depredations of the cetaceous tribes, we may be allowed to ask, why these small fishes proceed some hundred leagues beyond the reach of their enemies, and why they return in winter to the very haunts of their gigantic destroyers? If it be alleged, that those monstrous animals drive them into bays and inlets; why do they equally abound in the North sea and the Baltic, which are not frequented by whales? If mere want of food compels the herrings to detach their crowded colonies; how happens it that the migration always takes place at the same time, and at the same season of the year? It is difficult to conceive, that their stock of provisions should regularly be exhausted at the year's end? Besides, if the arctic pole be the native country of the herrings, as has been usually supposed, they should make their appearance, like birds of passage, in numerous troops at certain seasons, and very few or none should be seen during the rest of the year. Yet it is well known, that great quantities of them are caught in Norway, during the whole of summer; in the same country, and in Swedish Pomerania, the fishery is very productive from January to March; on the coast of Gothland, from October to December; in the north of Holland, in February, March, and April; and in Sweden, in the middle of winter. That part of the migrating shoal regularly directs its course to the coast of Iceland, is an assertion unsupportable by respectable testimony. Horrebow, who passed some years on that island, affirms, that a single herring will sometimes not be seen for many years; and Olaffsen, Ægidius, Otho-Fabricius, and others, corroborate his assertions.

Reputed migration doubted.

To account, then, for the movements of the herring, cod, tunny, anchovy, &c. it is in vain to have recourse to the rapacity of the whale, or to the urgent pressure of hunger; and least of all should we adopt the marvellous tales of periodical voyages, performed with the utmost order and exactitude. M. Bloch explains in a much more simple and natural manner the arrival and disappearance of the respective shoals. According to him,

herrings

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herrings have the same propensity as other fishes, and usually live in the depths of the water, till stimulated by the desire of reproducing their species. They then quit their retreat, and suddenly appear in places where they were not formerly seen: and, as the spawning time occurs sometimes sooner, and sometimes later, according to the temperature of the water, and the age of the fishes, we can easily conceive why those species which are reputed migratory, should be observed at different times. Those sea fishes which ascend rivers in spring, only return to their several haunts in autumn. The herrings are, doubtless, guided by an analogous instinct; and if we may be allowed to suppose, that they sometimes spawn more than once in the course of the year, we shall be at no loss to account for the circumstances of their wandering.

4. *Nourishment.*

Among fishes, as among quadrupeds and birds, some search for their food in the mud; others live on worms, insects, or marine plants. The former have their anterior extremity adapted to the extraction of peculiar juices from the earth; the latter have the conformation of their jaws or teeth suited to the capture and destruction of their appropriate prey. The greatest number of species, however, are carnivorous and extremely voracious, subsisting chiefly on other fishes, and frequently not sparing even their own offspring. When taken out of the water, and almost expiring, they will often greedily swallow the very bait which lured them to their ruin. In the sequel, we shall have occasion to adduce some striking instances of the violent and indiscriminate appetite of several fishes. The digestive power of their stomach is no less remarkable, and seems to increase with the quantity of food received into it. This food, though reduced to a gelatinous state, usually preserves its natural form; a circumstance which leads us to conclude, that the process of digestion is performed by the solvent power of some particular menstruum, and not by any trituration.

Most fishes carnivorous and voracious,

Fishes, in general, manifest a predilection for whatever they can swallow possessed of life. Some that have very small mouths, feed on worms and the spawn of other fish: others, whose mouths are larger, seek larger prey; it matters not of what kind, whether of another or their own. Those with the largest mouths, pursue almost every thing that has life; and often meet each other in fierce opposition, and the victor devours his antagonist. Thus are they irritated by the continual desire of satisfying their hunger; and the life of a fish, from the smallest to the greatest, is but one scene of hostility, violence, and evasion. The smaller fry, which stand no chance in the unequal combat, resort to those shallows, where the greater are unable or too heavy to pursue. There they become invaders in turn, and live on the spawn of large fishes, which they find floating on the surface of the water, till they are imprisoned and leisurely devoured by the mussel, oyster, or scallop, which lie in ambush at the bottom.

but can bear abstinence.

Notwithstanding the astonishing voracity of fishes, some of them are capable of suffering at least the apparent want of food for a long time. This is particularly the case with the gold and silver fishes which are kept in vases, and which seem to enjoy perfect health, though deprived of sustenance for months. But they may probably feed on minute invisible insects, or be endowed with the power of decomposing water, and of converting its elements into the means of subsistence. Much, in fact, remains to be discovered on the interesting subject of the food of fishes; for while the incessant craving and gluttony of some are obvious to the most superficial observation, the methods by which others are maintained in existence have only been surmised by conjecture. Meanwhile, it is of importance to remark, that in the water, as on the land, nature has nicely adjusted the balance of destruction and renovation, thus providently guarding against an overwhelming accumulation of putrid carcases, and multiplying, at the same time, the sources and centres of vitality and animal enjoyment.

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5. *Reproduction.*

In most, if not in all fishes, there is a difference in sex, though Bloch and others make mention of individuals, which seemed to unite the two sexes, and to be real hermaphrodites. The number of males, it has been remarked, is about double that of females; and were it not for this wise provision of nature, a large proportion of the extruded eggs would remain unfecundated. A few species, indeed, as the eel, blenny, &c. are viviparous; but by far the greater number are produced from eggs. These last compose the roe or ovaries of the females, which lie along the abdomen. The milt of the males is disposed along the back-bone, in one or two bags, and consists of a whitish glandular substance, which secretes the spermatic fluid. Though the history of the generation of fishes be still involved in considerable obscurity, it seems to be ascertained, that no sexual union takes place among the oviparous kinds, and that the eggs are fructified after exclusion. They are of a spherical form, and consist of a yolk, a white part, and a bright crescent-like spot, or germ. The yolk, which is usually surrounded by the white, is round, and not placed in the middle, but towards one of the sides; and the clear spot, or embryo, is situated between the yolk and the white. In this spot there is observable, on the day after fecundation, a moveable point, of a somewhat dull appearance. On the third day, it assumes the appearance of a thickish mass, detached on one side, and on the other strongly adhering to the yolk, and presenting the contour of the heart, which, at this period, receives an increase of motion, while the disengaged extremity, which forms the rudiments of the tail, is perceived to move at intervals. On the fourth day, the pulsations of the heart and the movements of the whole body occur in quicker succession. On the fifth, the circulation of the humours in the vessels may be discerned, when the fish is in a particular position. On the sixth, the back-bone may be distinctly recognised. On the seventh, two black points, which are the eyes, and the whole form of the animal, are visible to the naked eye. Although the yolk gradually diminishes as the embryo enlarges, the included animal cannot yet stretch itself at length, and makes a curve with its tail. Its motions are then so brisk, that when it turns its body, the yolk turns with it; and these motions become more and more frequent, as the moment of birth, which happens between the seventh and ninth day, approaches. By repeated strokes of the tail, the covering of the egg at length

Most fishes oviparous.

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length gives way, and the fish comes forth, first by the tail, redoubling its efforts, till it detach its head; and then it moves nimbly, and at liberty, in its new element. Such, at least, are the results of some particular observations: but it is obvious, that they must vary considerably according to circumstances; particularly, that the spawn must continue in the egg state in some species longer than in others, and this in proportion to the animal's size. The embryo salmon, for instance, continues in the egg from the beginning of December to the beginning of April, and the carp not above three weeks.

Fishes have different seasons for depositing their spawn. Some which live in the depths of the ocean, are said to choose the winter months; but, in general, those with which we are acquainted, choose the hottest months in summer, and prefer such water as is somewhat tepified by the beams of the sun. They then leave the deepest parts of the ocean, which are the coldest, and shoal round the coasts, or swim up the fresh-water rivers, which are warm as they are comparatively shallow, depositing their eggs where the sun's influence can most easily reach them, and seeming to take no farther charge of their future progeny.

Of the eggs thus deposited scarcely one in a hundred brings forth an animal, as they are devoured by all the lesser fry which frequent the shores, by aquatic birds near the margin, and by the larger fish in deep water. Still, however, the sea is amply supplied with inhabitants; and, notwithstanding their own rapacity, and that of various tribes of fowls, the numbers that escape are sufficient to relieve the wants of a considerable portion of mankind. Indeed, when we consider the fecundity of a single fish, the amount will seem astonishing. If we should be told, for example, that a single being could in one season, produce as many of its kind as there are inhabitants in England, it would strike us with surprise; yet the cod annually spawns, according to Lewenhoeck, above nine million of eggs contained in a single roe. The flounder is commonly known to produce above one million; and the mackarel above five hundred thousand; a herring of a moderate size will yield at least ten thousand; a carp, of 14 inches in length, contained, according to Petit, two hundred and sixty-two thousand, two hundred and twenty-four; and another, 16 inches long, contained three hundred and forty-two thousand, one hundred and forty-four; a perch deposited three hundred and eighty thousand, six hundred and forty; and a female sturgeon, seven million, six hundred and fifty-three thousand, two hundred.—The viviparous species are by no means so fruitful; yet the blenny brings forth two or three hundred at a time, all alive and playing round the parent together.

Number of eggs immense.

Some naturalists have suspected, that there are fishes which undergo certain metamorphoses in the early period of their existence, like the tadpoles of frogs. Mademoiselle Merian, in her splendid work on the Insects of Surinam, even describes frogs, which are transformed into fishes. Spelmann makes mention of aquatic animals of an ambiguous nature, which he met with at all seasons of the year, and which he terms *proteuses;* and Schranck and Laurenti have remarked in the Tyrolian lakes particular races of animals, which seem to form a gradation between tadpoles and branchiostegous fishes. Perhaps they are larvæ, or imperfect animals, whose developement is still obscure; yet it is not improbable that some fishes may undergo transformations analogous to those of young frogs and salamanders. The history of the *ostracion* and *diodon* families will warrant such a supposition; and the *siren lacertina* of Linnæus seems to be alike connected with reptiles and fishes.

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For several curious and interesting experiments relative to the artificial fecundation of the spawn of fishes, we must refer our readers to M. Jacobi's Memoir, inserted in the Berlin Transactions for 1764. By pressing the contents of the milt of salmon and trout on the spawn of these fishes, he succeeded in rendering the ova fruitful, and obtained live fish. Among these were several monsters, such as trouts with two heads, others in the form of a cross, &c. none of which lived beyond six weeks, exhausting in that time the juices of their own stomach, and the yolk of the egg to which they were attached.

6. *Duration.*

It is extremely difficult to ascertain the precise term which nature has assigned to the existence of those creatures which inhabit a medium different from our own. It is probable, that the life of fishes which escape the numerous snares that are laid for them, is considerably longer than their mere size would seem to indicate. In the first stages of their existence, their growth is, no doubt, rapid; but their fibres quickly become hard, and less susceptible of extension. When newly excluded from its egg, the fish grows four lines in the short space of eight hours; but three weeks at least elapse, before it acquire an additional line. Nor is the rate of growth at all equal in different species. Thus a carp attains only to the length of six or seven inches in three years, and to the weight of 12 pounds in ten years. The growth of the tench is still more tardy, since twelve years are required to give it the length of twenty inches.

There have been two methods devised for determining the age of fishes, the one, by the circles of the scales, the other, by the transverse section of the back-bone. When a fish's scale is examined through a microscope, it will be found to consist of a number of circles, one within another, in some measure resembling those which appear on the transverse section of a tree, and which are supposed to afford the same information. For, as in trees, we can tell their age by the number of their circles, so in fishes, we can tell theirs by the number of circles in every scale, reckoning one ring for every year of the animal's existence. By this method, the count de Buffon found a carp, whose scales he examined, to be not less than a hundred years old. Gesner adduces an instance of one of the same age, and Albertus of one more than double that period.—The age of the skate and the ray, which are destitute of scales, may be known by the other method, which consists in separating the joints of the back-bone, and then minutely observing the number of rings which the surface where it was joined exhibits. But whatever degree of precision we may attach to such evidence, we have no reason to doubt the great age of some fishes. Those persons who have ponds often know the oldest by their superior size and other indications. The carp which

Great age of some fishes.

were

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were bred in the ditches of Pont-Chartrain, are quoted by Buffon, as exceeding a hundred and fifty years; and those in the royal gardens of Charlottenburg, in Prussia, are said by Bloch to have their heads overgrown with moss. Ledelius alleges, that in some pools in Lusatia there are carp about 200 years old. At Manheim, there is the skeleton of a pike, 19 feet in length, and which is said to have weighed, when alive, 350 pounds. It was caught at Kayserlautern, in 1497; and a Greek inscription on a brass ring, inserted at the gills, announced that it had been put into the pond by the emperor Frederick II. that is to say, 267 years before it was taken. Some species, however, are known to have a much shorter existence; thus, the eel usually lives about 15 years; the bream and the tench, from 10 to 12, and the fifteen-spined stickle-back seldom survives two.—The comparative simplicity of their structure, the flexibility of their frame, the strength of their digestive power, their want of sensibility, and the equal temperature of the element which they inhabit, probably all contribute to the longevity of fishes. The same causes may, perhaps, exempt them from many diseases which are incident to other races of animals. Yet we know for certain, that they are occasionally subject to indisposition and distempers. Before the spawning season, they undergo a change of their external covering, analogous to *moulting* amongst the feathered tribes; their scales and skins are renewed, and the colours of the more beautiful kinds assume more fresh and vivid hues. But this annual change is not effected without evident symptoms of languor, decline, and suffering. Some kinds of salmon trout are liable to a leprous affection, the carp to smallpox, and the eruption of small tumours on the head and back, the perch to dropsy, eels to a cutaneous disorder which often proves fatal, and most species to ulcerated livers, or injured viscera, from the worms and insects of various descriptions which multiply within them.

Apodal Fishes. Diseases.

CHAP. IV. SYSTEMATIC EXPOSITION OF FISHES.

THE Linnæan *orders* of fishes have been instituted from the situation, presence, or absence of the ventral fins.

1. Such as are entirely destitute of these fins, are termed *pisces apodes*, *apodal* or *footless* fishes.

2. The *jugulares*, or *jugular*, are those which have ventral fins, placed more forward than the pectoral fins, or under the throat.

3. The *thoracici*, or *thoracic*, include those whose ventral fins are placed immediately under the pectoral fins, or on the breast.

4. The *abdominales*, or *abdominal*, comprise those whose ventral fins are situated behind the pectoral fins, or on the abdomen.

5. There still remains a particular tribe, denominated *cartilaginei*, which, as their name imports, have a cartilaginous instead of a bony skeleton. This tribe was by Linnæus separated from the rest, on the mistaken idea, that the individuals which compose it were furnished both with lungs and gills, and should be ranked in the class of amphibious animals.

The *genera* which pertain to the preceding orders are determined by the number of rays in the branchiostegous membrane, the condition of the teeth, the figure of the body, and of other remarkable parts.

The characters of the *species* are taken chiefly from the number of rays in the fins, which differs in the different species. But, as the precise enumeration of these rays is sometimes a matter of difficulty, and, as they are likewise subject to variation, it is necessary to have recourse to other marks, and to adopt, as subsidiary characters, the form and situation of particular fins, the proportion of the head to the body, the condition of the lateral line, the number of the vertebræ and ribs, &c.

I. APODAL.

THE fishes of this order approach very near to the amphibia, and some of them even resemble the serpent tribe. They have a smooth slippery skin, which is, in general, naked, or covered in some species only, with small, soft, and distant scales. Their body is long and slender; they have teeth in the jaws, and live in the sea; but some are found in rivers and standing waters. They feed on other animals.

Genus 1. MURÆNA. Muræna.

Head smooth; nostrils tubular; eyes covered by the common integument; gill-membrane ten-rayed; body nearly cylindrical, smooth, and slippery; dorsal, caudal, and anal fins united; spiracles behind the head or pectoral fins.

Roman muræna, or *murey*. No pectoral fins; body eel-shaped, and variegated; spiracle on each side the neck.—The colour of this fish is a dusky-greenish brown, diversified with dull yellow patches, and forming a kind of obscure net-work. The head is rather small; the mouth moderately wide, and the teeth sharp. The fins are of a dusky colour, with whitish spots. The murey is capable of living with equal facility in fresh or salt water, though principally found in the latter, especially on the coasts of the Mediterranean. It attains to a size at least equal, if not superior to the common eel, which it much resembles in its manners and voracity. The Romans prized it as an exquisite luxury, and kept it in appropriate reservoirs. *helena.*

Snake eel, or *sea serpent*. Snout lengthened; tail pointed, and finless; body round. The head of this species is long and slender, the gape very wide, the teeth very sharp, and the colour a very pale yellowish brown above, and bluish white beneath. It is a native of the Mediterranean and northern seas, where it often arrives at a very considerable size, and has probably given rise to the marvellous tales of huge sea serpents in the northern ocean.—The *anguilla ophis*, or *spotted eel* of Shaw, seems to be a distinct species, or else a marked variety, being spotted with brown, and chiefly found in the Indian seas, though sometimes also in the Mediterranean, &c. *ophis.*

Common eel.—The lower jaw longer than the upper; *anguilla.*

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per; body olive-brown above, somewhat silvery beneath. The figure and appearance of this species are too well known to require a particular description. It is a native of almost all the waters of the ancient continent, frequenting not only rivers but stagnant pools, and occasionally salt marshes and lakes. In spring it is found even in the Baltic and other seas. In some places near the mouths of the Baltic, they are taken in such abundance that they cannot be used fresh, but are smoked and salted, and conveyed by waggon-loads into Saxony, Silesia, &c. We are told that 2000 have been taken in Jutland at a single sweep of the net, and 60,000 in the Garonne in one day, by a single net. It is generally alleged that the eel cannot bear the water of the Danube; and it is rarely found either in that river or the Wolga, though very common in the lakes and rivers of Upper Austria. Its ordinary size is from two to three feet, though it has been known to attain to the length of six feet, and to weigh fifteen pouuds. Dale and others mention some of uncommon magnitude, but which were probably congers. Though impatient of heat and cold, the eel can live longer out of the water than any other fish, and is extremely tenacious of life, as its parts will move a considerable time after it has been skinned, and cut into pieces. It sometimes quits the water, and wanders about meadows and moist grounds in quest of particular food, as snails, worms, &c. It is also said to be fond of newsown peas, and to have sometimes taken refuge from severe frosts in adjoining hay-ricks. Its usual food consists of water-insects, worms, and the spawn of fishes. It will also devour almost any decayed animal substance. It is viviparous, producing its young about the end of summer; though both eggs, and ready-formed young are occasionally observed in the same individual. Its skin, which is proverbially slippery, from the large proportion of mucus with which it is furnished, serves, in some countries, from its toughness and pellucidity, as tackle for carriages, &c. and glass for windows. Though we learn from Athenæus, that the Sybarites exempted from every kind of tribute the venders of eels, the Romans seem to have held this fish very cheap as an article of food. In modern times it is reckoned highly nutritious, though somewhat difficult of digestion, and hurtful when taken to excess.

conger. *Conger eel.*—Two tentacula at the rostrum, the lateral line whitish and dotted. The first of these characters is not constant. But the conger may be distinguished from the common eel by other marks, such as its darker colour, larger eyes, its shorter lower jaw, and the greater size to which it usually attains. Specimens from the Mediterranean have sometimes been taken of the length of ten feet, and of the weight of more than a hundred pounds. It is likewise an inhabitant of the northern seas, and of those which surround some of the American islands. The conger is only an occasional visitant of fresh water, frequenting the mouths of rivers in spring. In the mouth of the Severn incredible quantities of the fry are taken in April, under the name of *elvers*. In its full-grown state the conger is also reckoned a useful article of food in many parts of Europe. The great quantities that are taken on the coast of Cornwall are chiefly exported to Spain and Portugal. Much of their abundant oil is drained away in the process of drying, the weight being reduced nearly eighty per cent. Congers are extremely voracious, preying on other fishes, and on various kinds of crustacea, particularly on the small crabs during their soft state after they have cast their shell.

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echidna. *Southern muræna.*—No pectoral fins; brown, with black variegations; depressed head and very turgid neck. This species, which inhabits the southern ocean, has a repulsive appearance, grows to a very considerable size, and affords excellent food.

siren. The *siren.*—Pectoral fins like hands with four fingers, gill membrane with three pinnatifid bones. This is the *siren lacertina* of former editions of the System of Nature. It is peculiar to the muddy swamps of South Carolina, preys on serpents, which it seizes and holds with its strong and firm teeth. It is sometimes a foot and a half in length; its heart has but one ventricle; it has ribs and a bony tail; and is so fragile, that if cast on the ground, it breaks into three or four pieces.

The other species are, *colubrina*, *serpens*, *myrus*, *guttata*, *cœca*, *catenata*, *reticulata*, *africana*, *zebra*, *meleagris*, and *viridis*.

Gen. 2. Synbranchus.

Synbranchus.

Body eel-shaped; no pectoral fins; spiracle single beneath the neck.

marmoratus. *Marbled synbranchus.*—Olive-brown, marbled with blackish spots; the body yellow beneath. Native of the fresh waters of Surinam.

immaculatus. *Plain synbranchus.*—Of a plain unvariegated brown colour. A native of Surinam.

Gen. 3. Monopterus.

Monopterus.

Body eel-shaped; nostrils placed between the eyes; fin caudal.

javanicus. *Javan monopterus.*—Livid brown or blackish, with a very sharp-pointed tail. This fish, which has the appearance and habits of a muræna, is a native of the Indian seas, and very common about the coasts of Java, where it is considered as an excellent food.

Gen. 4. Gymnotus.

Gymnotus.

Head with lateral opercula; two beards or tentacula on the upper lip; eyes covered by the common integument; gill-membrane five-rayed; body compressed, without dorsal fin (in most species), but carinated by a fin beneath.

carapo. *Carapo gymnotus.*—Brown, with the vent-fin of the length of the attenuated tail, and the upper jaw longer than the lower. This fish is a native of the American seas, and is said to be most frequent about the coast of Surinam. Its ordinary length is from one to two feet. It is reckoned excellent by the South Americans.

electricus. *Electrical gymnotus*, or *cramp-fish.*—Without scales or dorsal fin; the caudal very obtuse, and joined to the anal fin. This fish bears a considerable resemblance to a large eel, though somewhat thicker, and commonly of an uniform blackish-brown. It was first announced to the philosophers of Europe on account of its remarkable electrical or galvanic properties, in 1677, by M. Richer, who was commissioned by the French Academy to make some mathematical observations in Cayenne.

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eme. It would be tedious to recite all the remarks and experiments of succeeding observers, which conspire to prove the voluntary electricity of the gymnotus, which, however, occasionally exhibits some variations from the phenomena of common electricity. If a person touches the animal with one hand, in such a manner as to irritate it considerably, while the other is held at a small distance from it in the water, he will experience as strong a shock as from a charged Leyden phial. The shock is also readily communicated through a circle of eight or ten persons at once, the person at one extremity putting his hand in the water near the fish, while the other touches the animal. It is by this extraordinary faculty that the gymnotus supports its existence, the smaller fishes and other animals which happen to approach it being instantly stupified, and then falling an easy prey. It is even capable of depriving those who approach it in its native waters, of sense and motion. It is a native of the warmer regions of Africa and America, in which last it inhabits the large rivers, particularly those of Surinam. In Africa, it is said to occur chiefly in the branches of the Senegal. In the 65th volume of the Philosophical Transactions, our readers will find an accurate description of the external form of the electrical gymnotus, by the late ingenious Dr Garden, and one equally accurate of its internal structure by the celebrated Mr John Hunter.

acus. *Needle gymnotus.* Naked, with finless tail and belly, the anal fin of sixty rays, terminating before it reaches the tip of the tail. The only European species yet discovered, being a native of the Mediterranean, and described by Brunnich in his history of the fish of Marseilles.

To the same genus belong *fasciatus*, *albus*, *albifrons*, *rostratus*, *notopterus*, and *asiaticus*.

Trichiurus.

Gen. 5. TRICHIURUS.

Head stretched forwards, with lateral gill covers; teeth ensiform, semi-sagittated at the points, the fore teeth the largest; gill-membrane seven-rayed; body compressed and ensiform, with a subulate and finless tail.

lepturus. *Silvery trichiurus*, or *gymnogaster*.—The lower jaw longer than the upper. This fish is distinguished by the singularity of its shape, and the silver brilliancy of its colour. It is from two to three feet long, very voracious, and a rapid swimmer. In the pursuit of its prey, it sometimes leaps into small vessels which happen to be sailing by. It frequents the rivers and larger lakes of South America, and is also said to occur in some parts of India and China.

indicus. *Indian* or *electrical trichiurus*.—Jaws nf equal length. Inhabits the Indian seas, and is said to possess a degree of electrical power.

Anarchichas.

Gen. 6. ANARCHICAS.

Head somewhat obtuse; fore teeth both above and below, conical, diverging, strong; six or more grinders in the under jaw, and palate rounded; gill-membrane six-rayed, body roundish, caudal fin distinct.

upus. *Wolf fish*, *sea wolf*, or *ravenous wolf fish*.—Of a blackish gray colour, the sides, anal and caudal fins, and abdomen lighter. This is one of the few fishes which have fore teeth and grinders. Of three specimens examined by Dr Bloch, one had six rows of grinders in the upper jaw, and as many in the lower; another had six rows above, and four below; and a third had five above, and three below. The disposition and structure of all the teeth are excellently adapted for breaking and comminuting the crabs, lobsters, scallops, large whelks, &c. which this voracious animal grinds to pieces, and swallows with the shells. When caught, it fastens on any thing within its reach. Schonfelde relates, that it will seize on an anchor and leave the marks of its teeth behind; and we are informed by Steller, that one which he saw taken on the coast of Kamtschatka, seized with great violence a cutlass with which it was attempted to be killed, and broke it in pieces as if it had been made of glass. The fishermen, dreading its bite, endeavour as soon as possible to beat out its fore teeth, and then kill it by striking it on the head. Its flat and grinding teeth are often found in a fossil state, and known by the name of *bufonites*, or *toad-stones*, to which many superstitious virtues were formerly ascribed. The sea wolf grows to a very considerable size, being frequently four, and sometimes even seven feet in length. It has small scales and a lateral line, though described by most naturalists as destitute of both. It commonly frequents the deep parts of the sea, in the northern regions of the globe, and some parts of the British coasts, approaching the shores in spring, to deposit its spawn among the marine plants. It swims slowly, and with the serpentine motion of the eel. Owing to its forbidding appearance, it is not generally brought to market; but the fishermen, the Greenlanders, and the Scotch, find it excellent food. The latter call it the *sea cat*, and take off the head and skin before dressing it. The *strigosus* is now generally admitted to be only a variety of the preceding.

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minor. *Smaller wolf fish.*—With very sharp cartilaginous teeth. Inhabits the coast of Greenland.

pantherinus. *Panther Wolf fish.*—Yellow, or fulvous, spotted with brown. In other particulars it agrees with the common species. Native of the northern seas.

Odontognathus.

Gen. 7. ODONTOGNATHUS.

Mouth furnished with a strong moveable lamina or process on each side of the upper jaw; gill-membrane five-rayed.

aculeatus. *Aculeated odontognathus.*—Abdomen aculeated. Native of the American seas, and common about the coasts of Cayenne, where it ranks among the edible fishes.

Trichiurus.

Gen. 8. TRIURUS.

Snout cylindrical; one tooth in each jaw; dorsal and anal fin extended beyond the tail.

commersonii. *Commersonian triple-tail.*—The branchial orifice closed at pleasure by a valve. In general appearance and size it resembles a herring. It is distinguished from the whole class of fishes by the circumstance noted in the specific character. Native of the Indian seas.

Ammodytes.

Gen. 9. AMMODYTES.

Head compressed, narrower than the body; upper lip doubled, the lower jaw narrow, and pointed; teeth small

Apodal Fishes.

small and sharp; gill-membrane seven-rayed; body long, roundish, with very small scales; tail distinct.

tobianus. *Sand launce*, or *sand eel.*—The lower jaw longer than the upper. A native of the northern parts of Europe, commonly frequenting the coasts, and lying imbedded in the sand, in the summer months, at the depth of half a foot, or a foot, with its body rolled into a spiral form. In this situation it is taken at the recess of the tide, either for bait by the fishermen, or as an article of food, being regarded as a delicacy. It lives on worms and small fishes, not even excepting its own species; and it is itself preyed on by the porpoise, and larger fishes, particularly by the mackerel. Most of the older ichthyologists have erroneously represented it as destitute of scales, and Klein has improperly divided it into two species.

Ophidium.

Gen. 10. Ophidium.

Head somewhat naked; teeth in the jaws, palate, and fauces; gill-membrane seven-rayed, patulous; body sword shaped.

barbatum. *Bearded ophidium.*—Four cirrhi on the lower jaw. This species, which is frequent in the Mediterranean and Red seas, grows to ten or twelve inches long, is of a silvery hue, with a shade of pink, and marked with irregular linear spots; its skin is covered with soft oblong scales, adhering at their anterior edge. According to Belon, the Romans prized its flesh, which is white, but rather coarse.

imberbe. *Beardless ophidium.*—Jaws beardless; tail rather obtuse; in other respects, much allied to the former. Inhabits the Mediterranean, and has also been taken near Weymouth.

Viride, *aculeatum*, and *mastacembalus*, the other species, are but imperfectly known.

Stromateus.

Gen. 11. Stromateus.

Head compressed; teeth in the jaws and palate; body oval, broad, and slippery; tail bifid.

fiatola. *Striped stromateus.*—Marked with transverse undulated bands. This species, which is beautifully variegated, inhabits the Mediterranean and Red sea, and is known to the modern Romans by its specific appellation.

paru. *Paru stromateus.*—Gold-coloured back, and silvery abdomen. General size, that of a turbot. Much esteemed as a food. Native of South America and Tranquebar. The *cumarca* of Gmelin's Linnæus seems to be only a variety of this.

cinereus. *Ash-coloured stromateus.*—Tail forked, the lower lobe longer than the upper. Native of the Indian seas, and served at table, as a dainty, under the name of *pampel.*

argenteus. *Silver stromateus.*—With the lobes of the tail equal. Nearly allied to the preceding, a native of the same seas, and equally esteemed as an article of food.

niger. *Black stromateus.*—Entirely of a blackish colour. This also frequents the Indian seas; but is seldom prepared for the table, on account of its colour and the circumstance of its feeding on wood-lice, which are sometimes found in its mouth.

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Gen. 12. Xiphias.

Xiphias.

Head with the upper jaw terminating in a sword-shaped snout; mouth without teeth; gill-membrane eight-rayed; body roundish, and scaleless.

gladius. *Common* or *Sicilian sword-fish.*—The dorsal fin attenuated at the hind part. The body of the sword-fish is long, round, and gradually tapers towards the tail; the head is flattish, and the mouth wide, both jaws terminating in a point, but the upper stretched to a great distance beyond the lower, forming what is commonly called the *sword*, by which it pierces and kills the smaller kinds of fishes. It sometimes measures twenty feet in length, and is of an active and ravenous disposition. The method of taking it, described by Strabo, exactly agrees with the modern practice. A man ascends one of the cliffs that overhang the sea, and as soon as he spies the fish, gives notice by voice or signal of the course it takes. Another person in a boat climbs up the mast, and on seeing the fish, directs the rowers to it. The moment that he thinks they have got within reach, he descends and taking his spear in his hand, strikes into the fish, which, after wearying itself with its agitations, is seized and dragged into the boat. Its flesh is much esteemed by the Sicilians, who cut it in pieces and salt it. The pieces from the belly and tail are most esteemed, and the salted fins are sold under the name of *callo*. The sword-fish is frequently found in the Mediterranean, especially on the coasts of Sicily, where the male and female usually appear in pairs. It also occasionally occurs in the northern seas, and sometimes in the Pacific ocean; but Ælian erroneously asserts that it is at the same time a fresh-water fish, and an inhabitant of the Danube.

platypterus. *Broad-finned sword-fish.*—Distinguished from the preceding by a very broad back fin, and very long sharp-pointed thoracic appendages. Found not only in the Brasilian and East Indian seas, but also in the Northern ocean. It is said to have frequent combats with whales. The bottom of an East Indiaman was pierced by a fish of this species, in such a manner, that the sword was driven through almost to its base, and the animal killed by the violence of the effort. The wood, together with the sword imbedded in it, is now in the British Museum. When this species does not exceed four feet, it is considered as an eatable fish; but it is found of the length of twenty feet, and sometimes even much longer.

makaira. *Short-snouted sword-fish.*—Blackish; with snout of middling length, and two bony tubercles on each side of the tail. Resembles the common sword-fish, except that the snout is much shorter and thicker.

Sternoptyx.

Gen. 13. Sternoptyx.

Head obtuse; mouth turning up; teeth very small; no gill-membrane; body compressed, without visible scales; breast carinated, and folded both ways; abdomen pellucid.

diaphana. *Transparent sternoptyx.*—Silvery; with carinated breast, and pellucid abdomen; two or three inches long, broad, and compressed, the back rising into a sharp edge, and the abdomen terminating in a carina. Native of the American seas.

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Leptocephalus.

Gen. 14. LEPTOCEPHALUS.

Head narrow; body very thin and compressed; no pectoral fins.

morrisii. *Morris launce*, or *Anglesea morris*.—First discovered on the coast of Anglesea by Mr Morris, and described by Pennant under his name. Four inches in length; the head very small; the body extremely thin, and almost transparent.

Stylephorus.

Gen. 15. STYLEPHORUS.

Eyes pedunculated, standing on a short thick cylinder; snout lengthened, directed upwards, retractile towards the head by means of a membrane; mouth without teeth; gills three pair beneath the throat; pectoral fins small; dorsal the length of the back; caudal short, with spiny rays; body very long, compressed.

chordatus *Chordated stylephorus*.—Silvery, with an extremely long caudal thread. We shall here transcribe Dr Shaw's description of this very extraordinary species.

"The rostrum or narrow part which is terminated by the mouth, is connected to the back part of the head by a flexible leathery duplicature, which permits it to be either extended in such a manner that the mouth points directly upwards, or to fall back, so as to be received into a sort of case formed by the upper part of the head. On the top of the head are placed the eyes, which are of a form very nearly approaching to those of the genus *cancer*, except that the columns or parts on which each eye is placed, are much broader or thicker than in that genus; they are also placed close to each other, and the outward surface of the eyes when magnified, does not show the least appearance of a reticulated structure. The colour of the eyes, as well as of the columns on which they stand, is a clear chesnut brown, with a sort of coppery gloss. Below the head, on each side, is a considerable compressed semicircular space, the fore part of which is bounded by the covering of the gills, which covering seems to consist of a single membrane of a moderately strong nature. Beneath this, on each side, are three small pair of branchiæ. The body is extremely long, and compressed very much, and gradually diminishes as it approaches the tail, which terminates in a string or process of an enormous length, and finishes in a very fine point. This string, or caudal process, seems to be strengthened throughout its whole length, or at least as far as the eye can trace it, by a sort of double fibre or internal part. The pectoral fins are very small, and situated almost immediately behind the cavity on each side the thorax. The dorsal fin, which is of a thin and soft nature, runs from the head to within about an inch of the tail, when it seems suddenly to terminate, and a bare space is left of about a quarter of an inch. I am, however, not altogether without my doubts whether it might not, in the living animal, have run on quite to the tail, and whether the specimen might not have received some injury in that part. From this place commences a smaller fin which constitutes part of the caudal one. The caudal fin itself is furnished with five remarkable spines, the roots or originations of which may be traced to some depth in the thin part of the tail. The general colour of this fish is a rich silver, except on the flexible part belonging to the rostrum, which is of a deep brown, the fins and caudal processes are also brown, but not so deep as the part just mentioned. There is no appearance of scales on this fish. From the very singular figure and situation of the eyes, I have given it the generic name of *stylephorus*, and as the trivial name cannot be taken from any circumstance more properly than from the extraordinary thread-like process of the tail, I have applied to it the title of *chordatus*. It is a native of the West Indian seas, and was taken between Cuba and Martinico, near a small cluster of little islands about nine leagues from shore, where it was observed near the surface. The whole length of this uncommon animal, from the head to the extremity of the caudal process, is about 32 inches, of which the process itself measures 22."

Jugular Fishes.

II. JUGULAR.

THE fishes of this order have their ventral fins situated before the pectoral fins, and, as it were, under the throat. They are mostly inhabitants of the sea. Their body is sometimes covered with scales, and sometimes not. With a very few exceptions, they have spines in the dorsal and anal fins; and their gills have bony rays.

Callionymus.

Gen. 1. CALLIONYMUS.

The upper lip doubled; eyes near each other; the gill-membrane six-rayed; two breathing apertures in the hind part of the head; opercula close; body scaleless; ventral fins very distant.

lyra. *Gemmeous dragonet*.—The first ray of the first dorsal fin as long as the body. In this beautiful species, the pupils of the eyes are of a rich sapphire, the irides of a fine flame colour; the pectoral fins light brown, and the body yellow, blue, and white. "The blue," says Mr Pennant, "is of an inexpressible splendour; the richest cœrulean, glowing with a gemmeous brilliancy; the throat black." Dr Tyson has described it, in the 24th volume of the Philosophical Transactions, under the improper appellation of the *yellow gurnard*. It grows to the length of 10 or 12 inches; the body is slender, round, and smooth; and the membranes of all the fins extremely thin and delicate. It is found as far north as Norway and Spitzbergen, and as far south as the Mediterranean, and is not unfrequent on the Scarborough coasts, where it is taken by the hook in 30 or 40 fathoms water. It is often found in the stomach of the cod-fish. Its flesh is white and well flavoured. Rondelet compares it to that of the gudgeon. Pontoppidan, who never saw it, asserts, with his usual credulity, that it can fly in the air to the distance of several musket shot.

dracunculus. *Sordid dragonet*.—The rays of the first dorsal fin shorter than the body. In most other respects it agrees with the preceding.

This genus likewise comprises *indicus*, *baikalensis*, *ocellatus*, *sagitta*, and *japanicus*.

Uranoscopus.

Gen. 2. URANOSCOPUS.

Head depressed, rough and large; mouth turned up; the upper jaw shortest; gill-membrane papillary and

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dentated; with six rays, gill-covers membranaceous and ciliated; anus in the middle of the body.

scaber. *Bearded star-gazer.*—Back smooth; usual length about 12 inches. The head is large, squarish, and covered with a bony case. The mouth is wide, and opens in an almost vertical direction. The eyes are situated very near each other on the top of the head. A long cirrhus or beard extends beyond the lips, which are themselves edged with smaller ones; frequenting shallows near the shores; it lies concealed in the mud, exposing only the tip of the head, and waving its beards in various directions, and thus decoying the smaller fishes and marine insects, which mistake these organs for worms. It is said to sleep during the day. Is found chiefly in the Mediterranean. Its flesh is white, but tough, coarse, and meagre.

japonicus. *Japanese star-gazer.*—Back rough, with a series of spinous scales. Body roundish; yellow above; white underneath. Native of the coasts of Amboyna.

Trachinus.

Gen. 3. TRACHINUS.

Head slightly rough, compressed; gill-membrane six-rayed; inferior plate of the gill-covers serrated; vent near the breast.

draco. *Dragon weever.* Somewhat silvery hue, with transverse yellowish streaks; the first dorsal fin black, and five-rayed: of a lengthened shape, much compressed, and covered with small deciduous scales. The mouth and eyes, in respect of position, resemble those of the star-gazer. The usual length of this fish is from 10 to 12 inches. It frequently imbeds itself in the sand, and if trodden on, endeavours to wound the aggressor with the spines of its first dorsal fin. The punctures are very troublesome and painful, though it does not appear that the spines contain any poisonous matter. It feeds principally on marine insects, worms, and small fishes, and is very tenacious of life, being capable of existing many hours out of the water. From this circumstance the French call it *vive* and *viver*, which we have corrupted into *weever*. It frequents not only the Mediterranean, but the northern seas, and is found abundantly on the coasts of Holland and East Friezland. Its flesh is well flavoured, easy of digestion, and highly esteemed by the Dutch. The greater weever, described by Pennant, hardly deserves to be considered as a distinct species.

osbeckii. *Osbeckian weever.* White, spotted with black; both jaws of equal length. Native of the Atlantic; found about the isle of Ascension, &c. and described by Osbeck in his voyage to China.

Gadus.

Gen. 4. GADUS.

Head smooth; gill-membrane with seven round rays; body oblong, with deciduous scales; fins covered with a common skin; more dorsal and anal fins than one; the rays not prickly; the pectoral fins attenuated to a point.

* *With three dorsal fins, cirrhi at the mouth.*

æglefinus. *Haddock.* Whitish; the tail bilobated, the upper jaw the longest. Another distinguishing character may be deduced from the large black spot on each side above the pectoral fins. Superstition assigns this mark to the impression which St Peter left with his finger and thumb, when he took the tribute out of the mouth of a fish of this species, and which has been continued to the whole race. The haddock is usually of a moderate size, measuring about 18 inches or two feet in length, and the best for the table weighing from two to four pounds. It is found in the northern seas in prodigious shoals, visiting particular coasts at stated seasons, and for the most part attended by immense quantities of dog-fish, which, with seals, and other inhabitants of the ocean, are its constant devourers. Its food consists of small fishes, worms, crabs, and sea insects, and it fattens on berrings. In January, it deposits its spawn on the fuci near the shore, and is out of season till May. Its flesh is white, firm, delicate, and easy of digestion.

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callarias. *Doise.* Varied, with an even tail, and upper jaw longest. Somewhat smaller than the haddock, seldom exceeding the weight of two pounds. Its colour is subject to vary with age and seasons. It inhabits the northern seas, the Baltic, and the Mediterranean. Otto Fabricius found in its stomach the sea-scorpion, sand-eel, crabs, and different species of sea-worms. It spawns in January and February, is taken both by the line and net, and is reckoned delicate eating.

morhua. *Common cod.*—Tail nearly equal, the first ray of the anal fin armed with a spine. This well-known and important species, which yields food and wealth to large districts of country, is found in immense shoals. It measures from two to three feet long, is of a cinereous colour with yellowish spots above and white below, and has larger scales than the other species of this genus. The young are sometimes reddish, with orange-coloured spots. It feeds on sepiæ, crabs, and fishes, not even sparing its own species, catching at any small body it perceives moved by the water, and throwing up what it does not digest. Its range of climate lies principally between the latitudes 50° and 66°. The great rendezvous of cod is on the banks of Newfoundland, and the other sand-banks that lie off the coasts of Cape Breton, Nova Scotia, and New England. This fish likewise abounds off the Hebrides, Ireland, the coast of Holland, &c. and is generally fattest and most numerous where the greatest sea runs. In our seas they begin to spawn in January; though some continue in roe till the beginning of April. As they recover sooner after spawning than most other fish, it is customary to take some good ones all the summer. When out of season they are thin-tailed and lousy; and the lice chiefly fix themselves on the inside of their mouths. Those most esteemed for the table are of a middling size, and are chosen by their plumpness and roundness, especially near the tail, by the depth of the furrow behind the head, and by the regular undulated appearance of the sides, as if they were ribbed. The glutinous parts about the head lose their delicate flavour after it has been four-and-twenty hours out of the water. The fish itself dies on being removed from salt-water, or put into fresh. The fishermen are well acquainted with the use of the air-bladder, and dexterously perforate the living fish with a needle, in order to let out the air; for without this operation the fish could not be kept under water in the well-boats, and brought fresh to market. The sounds, when salted, are reckoned a delicacy,

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delicacy, and are often brought in this state from Newfoundland. The Icelanders prepare from this part of the fish a species of isinglass. Pennant makes mention of a cod taken at Scarborough in 1755, which was five feet eight inches in length, and weighed 78 pounds. But the general weight of these fish in the Yorkshire seas is from 14 to 40 pounds.

luscus. *Bib.*—The first ray of the ventral fin setaceous; about a foot long; body deep, and sides compressed; eyes covered with a loose membrane, so as to be blown up at the pleasure of the animal. The mouth is small, and under the chin is a cirrhus about an inch long. Native of the European seas, and prized as an article of food.

barbatus. *Whiting pout.*—Seven punctures on each side of the lower jaw. Much deeper in proportion to its length than any of the genus, rarely exceeding a foot in length; and one of that size being nearly four inches in the broadest part. Inhabits the Mediterranean and northern seas; burrows in the sand, and feeds on the blenny, salmon, and even young crabs. Its flesh is white and delicate, but somewhat dry.

minutus. *Poor.*—Vent in the middle of the body. Little more than six inches long; a small beard on the chin, and the eyes covered with a loose membrane. The abdomen is lined with a black peritonæum. The poor is supposed to feed chiefly on worms and insects, or on the young and soft testaceous animals. It occurs in the Baltic and Mediterranean, and in some parts of the northern seas. It is reckoned a wholesome food, but is not fit for being salted or dried.

blennioïdes. *Blennoid gadus.*—With didactyle ventral fins. Has the habit of a whiting, and frequents the Mediterranean.

saida. *Saida gadus.*—Bluish, with brown back, white abdomen, and the second ray of the ventral fins terminating in a long bristle. Length about eight inches. Eatable, but dry and juiceless. A native of the White sea.

** *Three dorsal fins, and no cirrhi.*

virens. *Green gadus.*—Greenish back and forked tail. Nearly resembles the pollack. Abounds in the northern seas.

merlangus. *Whiting.*—White; the upper jaw longest. Usual length about ten or twelve inches, and the largest seldom exceeding twenty. Specimens from four to eight pounds in weight have been taken in the deep water at the edge of the Dogger bank. It is a fish of an elegant make; the body rather long, and covered with small round silvery scales; the head and back are of a pale brown, and the sides are slightly streaked with yellow. Though found in the Baltic, it is much more numerous in the north seas, and appears in shoals on the coasts of Holland, France, and England, during the spring, keeping at the distance of from half a mile to three miles from the shore. The whiting feeds on small crabs, worms, and young fishes, and is particularly fond of sprats and young herrings, with which the fishermen generally bait for it, and in default of them, with pieces of fresh herring. This species begins to spawn at the end of the year, and continues to the beginning of February. Its flesh is white, tender, and delicate; but insipid when the fish is out of season. The chief time of the whiting fishery in France is in January and February, though in England and Holland it is practised at a much later period.

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carbonarius. *Coal-fish.*—The under jaw longest, the lateral line straight. When full grown, this species will frequently measure two feet and a half in length, and four or five inches in breadth, and is distinguished from its congeners by its very dark or black colour, though the young are brown or olive. It is of an elegant tapering shape, with a pretty large and forked tail. It inhabits the Baltic, the northern, and Mediterranean seas, and swarms round our rocky and deep coasts, particularly those of Scotland and the Orkneys, affording by its fry, subsistence to numbers of the poor. In its full grown state it is coarse food.

pollachius. *Pollack.*—The under jaw longest, the lateral line curved. This species is broad, and of a brown colour; feeds chiefly on small fishes, especially launces; and seldom grows to a very large size, though some have been taken at Scarborough which weighed nearly 28 pounds. It is found in the Baltic and northern sea, and is very common on many of our rocky coasts. During summer it is seen frolicking on the surface of the water, and will bite at any thing that appears on the top of the waves. It is reckoned a good eating fish.

*** *With two dorsal fins.*

merluccius. *Hake.*—Beardless; the under jaw longest. Considerably lengthened, measuring from one to two feet; the body pale ash-colour on the back, and whitish on the sides and abdomen. This fish, which is very voracious, frequents the Mediterranean and northern seas. Its flesh is eatable and flaky, but little esteemed. It is salted and dried as food for the lower orders of people. One of the most considerable hake-fisheries is carried on about the coasts of Brittany, both by the hook and net. It is practised chiefly by night. The baits principally used are launces, sardines, and other small fishes.

molva. *Ling.*—Bearded; the upper jaw longest. Long and slender; the sides and back sometimes of an olive hue, and sometimes cinereous; abdomen and ventral fins white, and the tail marked near the end with a transverse black bar, and tipped with white. Its ordinary length is from three to four feet, but it will sometimes grow to seven. It is an inhabitant of the northern seas, chiefly frequenting deep water, living on small fishes, shrimps, &c.; and depositing its spawn in June, among the fuci in oozy bottoms. In the Yorkshire seas, it is in perfection from the beginning of February to the beginning of May, during which season the liver is very white, and abounds with a fine flavoured oil. In many places ling is salted both for exportation and home consumption. An excellent isinglass is prepared from its sound.

leverianus. *Leverian gadus.*—Somewhat cinereous, with ocellated whitish spots. Supposed to be a native of the Southern ocean.

albidus. *Whitish gadus.*—Bearded; ventral fins didactyle and elongated. Inhabits the Mediterranean.

tau. *Toad gadus.*—Bearded; gill-covers with three spines; the first dorsal fin with three rays. Native of the American and Indian seas.

lota. *Burbat.*—Bearded; the jaws of equal length. Body much lengthened, somewhat cylindrical, of a brownish-yellow

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yellow colour, and white below; but the shades vary at different seasons, and in different individuals. It is a fresh-water fish, affecting clear lakes and rivers; feeding voraciously on all the smaller fishes, as well as on frogs, worms, and aquatic insects; spawning in the finest season of the year, and rapidly attaining to full growth. The largest which are taken in England rarely exceed the weight of three pounds; but in some parts of Europe they are found of more than double that weight, and of the length of three feet and more. They occur in great plenty and perfection in the lake of Geneva, and are by no means rare in many places in Europe, Siberia, and India. In England it frequents the lakes of the northern counties, some of the Lincolnshire fens, and the rivers Witham and Trent. Its flesh is white, delicate, and easy of digestion; and its liver, when in season, is reputed a peculiar dainty. Aldrovandus makes mention of an old German countess who expended the greatest part of her income in the purchase of this dish. According to Bloch the burbat fishery once proved so productive in the Oder, that the fattest were cut into narrow thongs, which were dried, and used as matches.

mustela. *Weasel gadus, five-bearded cod,* or *whistle-fish.*—Five cirrhi; the first dorsal fin incomplete. Grows to nearly 19 inches; feeds on the testaceous and crustaceous marine animals; deposits its spawn in autumn; is covered with mucus and very thin scales; and is of a brownish yellow colour, with black spots, and white below. The *tricirratus* and the *rusticus* are only varieties of this species.

cimbrius. *Cimbrian gadus.*—Four cirrhi; first dorsal fin incomplete, with the first ray hastated. Nearly allied to the preceding. Native of the Atlantic and northern seas.

**** *With one dorsal fin.*

mediterraneus. *Mediterranean gadus.*—Two cirrhi on the upper lip, and one on the lower. Native of the Mediterranean. Considered by La Cépède as a *blennius.*

brosme. *Torsk,* or *tusk.*—Mouth bearded; tail oval and acute. About twenty inches in length; colour of the head dusky, of the back and sides yellow, of the belly white. Inhabits the northern seas, about the Shetland islands, and is not observed lower than the Orkneys. Both barrelled and dried, it forms a considerable article of commerce.

Blennius.

Gen. 5. BLENNIUS.

Head sloping, and covered with scales; gill-membrane six-rayed; body lanceolate; ventral fins with two spineless processes, the anal fin detached.

* *With crested head.*

gabrita. *Crested blenny.*—Crest transverse, and skinny. Length about four or five inches; body long, compressed, and slippery. The crest erected or depressed at pleasure. Inhabits the European seas, and is sometimes found about the rocky coasts of Great Britain.

cristatus. *Punarn.*—Longitudinal setaceous crest between the eyes. Native of the Indian seas.

cornutus. *Horned blenny.*—Simple ray between the eyes; and single dorsal fin. Inhabits the Indian seas.

ocellaris. *Ocellated blenny.*—Blueish-green; subfasciated with brown broad dorsal fin, marked by a black ocellated spot. Length about six or eight inches. Inhabits the Mediterranean, among the rocks and sea-plants near the shore. Its flesh is meagre and not much esteemed.

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fasciatus. *Fasciated blenny.*—Two simple cirrhi between the eyes; the vent fin with 19 rays. Native of the Indian seas.

saliens. *Salient blenny.*—Brown, streaked with black, with a simple cirrhus on the head, and very large pectoral fins. Observed by Commerson about some of the southern islands, particularly those of New Britain. It was seen swimming by hundreds; and, as it were, flying over the surface of the water, occasionally springing up and down with great rapidity among the rocks.

gattorugine. *Gattorugine.*—Small palmated fins on the eyebrows and nape. Inhabits the Mediterranean and Atlantic; and is reckoned eatable.

superciliosus. *Supercilious blenny.*—With palmated superciliary cirrhi, the lateral line curved. Grows to the length of about twelve inches; is viviparous; and inhabits the Indian seas.

tentaculatus. *Tentaculated blenny.*—A simple cirrhus over the eyes, and a large ocellated spot on the back fin. Nearly allied to the horned species; and is found in the Mediterranean.

simus. *Simous blenny.*—With a very small cirrhus over the eyes; dorsal fin united behind to the caudal fin, and crooked lateral line. Length about three inches and a half. Described by Swief, from a specimen in the museum of the Petersburgh Academy.

phycis. *Hake blenny,* or *forked hake.*—Nostrils somewhat crested, a cirrhus on the upper lip, and two dorsal fins. Grows to be eighteen inches long; inhabits the Mediterranean, and occurs on the coast of Cornwall. Improperly classed by Pennant among the gadi.

** *Head plain, or crestless.*

trifurcatus. *Trifurcated blenny,* or *trifurcated hake.*—Brown with white lips, and three-rayed open ventral fins. Much allied to *gadus tau;* was first discovered by Mr Davies near Beaumaris, and described by Mr Pennant as a gadus.

punctulatus. *Punctulated blenny.*—Whitish, scaly, with irregular brown points, and elongated ventral fins. Head large; size about five inches. Described from a specimen in the Paris Museum.

pholis. *Smooth blenny.*—The lateral line curved, and subbifid. This species, which frequents the northern and Mediterranean seas, lying among stones and sea-weed, and occasionally entering the mouths of rivers, will grow to the length of seven or eight inches, but is usually much smaller. It bites fiercely, when first taken, and is so tenacious of life, that it may be kept 24 hours out of water. It feeds on smaller fishes and their spawn, as well as on shell-fish, sea-insects, &c. It is smooth, and covered with mucus. Being a coarse fish, it is principally used as a bait.

boscianus. *Boscian blenny.*—Olivaceous, with brown and whitish clouds; vent in the middle of the body. Very much allied to the preceding. Native of the American seas, and very common in the bay of Charlestown. It has its name from *M. Bosc,* by whom it was discovered.

gemellus. *Gunnel, spotted blenny,* or *butter fish.*—The dorsal fin marked with ten ocellated black spots. About nine or ten inches in length; head small, body compressed,

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pressed, and the colour of the body yellow brown, clouded and freckled with deeper specks. This species inhabits the Baltic, Mediterranean, and northern seas. Though coarse, it is often dried and eaten by the Greenlanders. The number of spots on the back fin varies from nine to twelve.

mustelaris *Weasel blenny.*—The anterior dorsal fin three-rayed. Native of the Indian seas.

viviparus. *Viviparous blenny.*—Two tentacula at the mouth. Is sometimes found of the length of a foot, or even of 15 inches. Of a somewhat slender form, with a smooth slippery skin, covered with small scales of a yellowish olive colour, paler beneath, and marked on the upper parts by several moderately large dusky spots, forming a kind of bars on the dorsal fin and over the back. The rays of all the fins are soft. This species is a littoral fish, frequenting the coasts of the Mediterranean, Baltic, and northern seas; sometimes entering the mouths of rivers, and feeding like its congeners on the smaller fishes, insects, &c. Its ova are hatched internally, and the young acquire their perfect form before the time of their birth. Not less than two or even three hundred of these have been sometimes observed in a single fish. When the latter is advanced in its pregnancy, it is scarcely possible to touch the abdomen without causing the immediate exclusion of some of the young, which are immediately capable of swimming with great vivacity. It probably breeds more than once in the course of the year; at least naturalists have assigned different seasons to the production of its young. Its flesh is white and fat; but a prejudice has been entertained against it, because the bones, like those of the gar-fish, become green by boiling. According to the observation of Linnæus, they are also phosphorescent in the dark.

lumpenus. *Areolated blenny.*—Yellowish, with subcylindric body, marked on the back by brown patches. Inhabits the deep sandy shores of the Mediterranean, and conceals itself among fuci, stones, &c. Sometimes grows to 10 or 12 inches.

raninus. *Frog blenny.*—Brown, with obscurely six-cleft ventral fins, and gular cirrhus. Native of the northern seas and of the Swedish lakes; in habit resembling the *gadus tau*. Is not eatable, and is said to frighten away other fish.

muræno-des. *Murænoid blenny.*—Gill-membrane three-rayed; ventral fins one-rayed, with very minute spines. Body compressed, sword-shaped, smooth, and without visible scales. Described by Swief from a specimen in the Museum of the Petersburgh academy.

Kurtus.

Gen. 6. Kurtus.

Body carinated above and below, back elevated, gill-membrane two-rayed.

indicus. *Indian kurtus.*—Silvery, with gold-coloured back. Inhabits the Indian seas. Length, including the tail, about ten inches, and the greatest breadth somewhat more than four inches. Feeds on shell-fish, small crabs, &c.

III. THORACIC.

The fishes of this order have the ventral fins at the breast, or nearly under the pectoral fins. They are generally voracious, preying on other fishes; they are mostly inhabitants of the sea; and their skins, with a few exceptions, are furnished with scales. None of them are viviparous. Thoracic Fishes.

Gen. 1. Cæpola. Cæpola.

Head roundish and compressed; mouth turning up, a single row of curved teeth; gill-membrane six-rayed; body sword-shaped and scaleless; the abdomen scarcely so long as the head.

Common band fish, ribband-fish, or *tape-fish.*—Caudal fin attenuated, head very obtuse. Very thin, and almost transparent, so that its vertebræ are visible. Grows to the length of four or five feet. It swims with rapidity, and haunts the muddy or weedy shores of the Mediterranean. Scarcely eatable, having little or no flesh. *tænia.*

Rubescent band-fish.—Caudal fin attenuated, jaws pointed. A rare species, and not very distinctly described by authors. It is said to inhabit the Mediterranean. *rubescens.*

The other species are *trachyptera* and *hermaniana.*

Gen. 2. Gymnetrus. Gymnetrus.

Body very long and compressed; teeth numerous and subulate; gill-membrane four or five-rayed; anal fin wanting.

Ascanian gymnetrus.—Silvery, speckled longitudinally with brown points, and with the ventral cirrhi dilated at the tips. This singular fish, which is but imperfectly described in the *Icones Rerum Naturalium* of Professor Ascanius, is distinguished by the peculiar conformation of its ventral fins, which have more the appearance of long single rays or processes terminated by a small ovate and expanded tip. It is said either to precede or accompany the shoals of herrings in the northern seas, and is popularly denominated *king of the herrings.* That described by Dr Shaw from a drawing and notes in the possession of Dr Russel, is perhaps either a variety or sexual difference of the *ascanian.* *ascanii.*

Hawkinsian or *Blochian gymnetrus.*—Bluish, silvery, with oblique, linear, brown bands, and rounded spots, red fins, and four long ventral processes. Described by Dr Bloch, from a drawing communicated by J. Hawkins, Esq. In general appearance, much allied to the other kinds of gymnetrus; from which, however, it is readily distinguished by its two pair of ventral processes with their finny extremities, and large distant round spots on the body. A native of the Indian seas. A specimen was thrown on the coast of Cornwall in February 1798. *hawkenii.*

Cepedian gymnetrus.—Described by La Cépède, from a coloured Chinese drawing, therefore very imperfectly known. *lanceola-tus.*

Gen. 3. Vandellius. Vandellius.

Body very long and sword-shaped; gill-membrane five or six-rayed; teeth subulate, and those in front largest.

Lusitanian vandel.—Silvery, with forked tail. Occurs, though very rarely, in the Mediterranean and Atlantic seas. It has been sometimes taken near Lisbon. *lusitani-cus.*

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bon. Dr Vandelli considers it as nearly related to the genus *trichiurus*. There is in the British Museum a dried specimen, which is four feet eight inches in length, the breadth three inches and a half, and the thickness very slight in proportion.

Echeneis.

Gen. 4. Echeneis.

Head oily, naked, aad depressed, flat above, and emarginated, transversely sulcated, and the sulci serrated; gill-membrane ten-rayed; body scaleless.

remora. *Mediterranean remora*, or *sucking-fish*.—Tail forked; head with eighteen striæ or bars. This number, however, is subject to vary, and cannot be safely assumed as a certain character. Grows to the length of about eighteen inches, and is usually of an uniform brown colour. It is remarkable for the apparatus on its head, by which it firmly adheres to rocks, ships, or animals, being incapable of swimming easily to any considerable distance. From this adhesive property arose the marvellous account of the ancients, who alleged that the remora could arrest a ship under full sail in the midst of the ocean. They also pretended, that it completely subdued the passion of love. Five individuals of this species have been found fastened to the body of a single shark. The latter fish, it is said, will not swallow them. The Indians of Cuba and Jamaica formerly kept and fed sucking-fishes for the purpose of catching others. The owner, on a calm morning, would carry one of them out to sea, secured to his canoe by a small but strong line, many fathoms in length; the creature fastened on the first fish in its way. The Indian, meanwhile, loosened and let go the line, which was provided with a buoy to mark the course which the sucking-fish had taken; and he pursued it in his canoe, until he perceived his game to be nearly exhausted. He then gradually drew the line towards the shore, the remora still so inflexibly adhering to his prey, as not easily to be removed. Oviedo says, he has known turtle taken by this mode, of a weight that no single man could support. This species inhabits the ocean and the Mediterranean. Its flesh is said to taste like fried artichokes.

neucrates. *Indian remora*, or *longest sucking-fish*.—Tail entire; 24 bars on the head. Occurs more frequently in the Indian and American seas than in those of Europe, and is very common about the Mozambique coast, where it is used in catching turtle. It is found of the length of two or three feet, or even of seven. The upper parts of the body are olive green, and the under parts are whitish. Its flesh is tough and meagre.

lineata. *Lineated remora*.—Tail wedge-shaped; head with ten bars, two longitudinal white lines on each side of the body. Inhabits the Pacific ocean.

Coryphæna.

Gen. 5. Coryphæna.

Head much sloping and truncated; gill membrane five-rayed; the dorsal fin of the length of the back.

hippurus. *Common coryphene*, or *dolphin*. Forked tail. Inhabits the Mediterranean, Indian, and Atlantic seas, often appearing in large shoals, playing round ships, and eagerly devouring any articles of food that happen to be thrown overboard. It will even swallow indigestible substances, sach as iron nails, &c. Like its congeners, it exhibits splendid and vivid hues in the water, being of a bright and beautiful blue-green, accompanied by a golden gloss. When taken out of the water, this fine combination of colouring gradually vanishes with the principle of life. Its ordinary length is about three feet; but it is often seen of four, or even five feet in length. It is strong and voracious, pursuing the smaller fishes, and especially persecuting the flying-fish. In spring and autumn it frequents shores, to deposit its spawn. As its flesh is much esteemed, it is taken both with the line and net. Though popularly called dolphin, it is not to be confounded with the *delphinus* of the ancients.

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Of the following, which more or less resemble the preceding, the history is too obscure to detain us: *equisetis, plumieri, cærulea, pentadactyla, novacula, chrysurus, pompilus, fasciolata, velifera, psittacus, scomberoides, acuta, sima, virens, hemiptera, branchiostega, japonica, clypeata, lineata*, and *sinensis*.

Macrourus.

Gen. 6. Macrourus.

Head and eyes large; body at the hind part attenuated into the tail.

rupestris. Long-tailed *imminset*. Two dorsal fins, of which the first has the first ray toothed at the back. This is the *coryphæna rupestris* of Linnæus. It chiefly occurs about the coasts of Greenland and Iceland, where it is regarded as a dainty. The head is large and thick, and the body is covered with rounded scales, each of which is furnished with a toothed carina, ending in a pointed tip, so that the hand is wounded by drawing it over the fish from the tail towards the head. When taken, its body swells, as if with rage, and its eyes project in a hideous manner.

Gobius.

Gen. 7. Gobius.

Head small, with two approximated pores between the eyes, one pore placed before the other; gill-membrane four-rayed; body small, compressed on both sides, covered with small scales, and furnished with a pimple behind the vent; the ventral fins coalescing into an oval shape; two dorsal fins.

niger. *Common*, or *black goby*, *sea gudgeon*, or *miller's-thumb*. Fourteen rays in the second dorsal fin. Grows to the length of six inches. The body is wedge-shaped, soft, and slippery, and overspread with small dusky or blackish specks. This species is said to affix itself to the rocks by the union of its ventral fins in the form of a funnel, from which circumstance it is sometimes called *rock-fish*. It is a native of the Mediterranean and southern seas, frequenting the shores in the beginning of summer, when it deposits its spawn. It is edible, but not held in particular estimation.

To this numerous genus also belong *bicolor, cruentatus, paganellus, arabicus, nebulosus, cleotris, aphya, minutus, jozo, pectinirostris, schlosseri, melanurus, boddaertii, lagocephalus, cyprinoides, lanceolatus, boscii, cærulens, broussoneti, plumieri, ocellaris, ater*, and *anguillaris*.

Gob iomorus.

Gen. 8. Gobiomorus.

Habit as in the preceding genus; ventral fins distinct.

australis. *Southern gobiomore*. *Gobius strigatus* of Linnæus.

Blue

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Blue green, with red spots; whitish beneath; head variegated with yellow, and the fins with red.—Native of the southern ocean.

Cottus.

Gen. 9. COTTUS.

Head broader than the body, and armed with spines; eyes vertical, furnished with a nictitating membrane; gill membrane six-rayed; body round, without scales, attenuated towards the tail; dorsal fins more than one.

cataphractus. *Mailed* or *armed bull-head*, or *pogge*.—Covered with a hard crust; two bifid warts on the rostrum; head furnished with cirrhi below. General length about five or six inches. The head large, bony, and rugged; the body octagonal, and covered with a number of strong bony crusts.—Frequents the European seas, and is plentiful on our own coasts, living on worms and water insects, particularly young crabs, and spawning in the month of May. It is dressed for the table, but not esteemed a luxury.

quadricornis. *Four-horned bull-head*, with four bony tubercles on the head.—Native of the Mediterranean, Baltic, and northern seas. Used chiefly as a bait.

grunniens. *Grunting bull-head*.—Throat shagged with cirrhi; body naked.—When first taken, it utters, like some of the gurnards, a kind of abrupt grunting sound, by the sudden expulsion of air from the internal cavities, through the gill-covers and mouth. It is reckoned esculent; but the liver is said to be hurtful. Native of the Indian and American seas.

scorpius. *Lasher bull-head*, or *father-lasher*.—Several spines on the head; the upper jaw rather longer than the lower. Inhabits the Mediterranean, and the northern ocean of Europe and America.—It is very strong, swims with great rapidity, and is very voracious, preying on the blennies, cod, herring, salmon, as well as on smaller fishes and insects. It is very frequent in Greenland, where it sometimes attains to the length of six feet, and where it is much relished as an article of food. It is said to be able to live a considerable time out of water, having the power of closing the gill-covers so as to exclude the effects of atmospheric air. Like the grunting bull-head, it utters a strong sound when first taken.

gobio. *River bull-head*, or *miller's thumb*.—Smooth, with two spines on the head.—Inhabits the clear rivers and brooks of Europe and Siberia, generally lying on the gravel, or concealing itself beneath the stones, preying on worms, water insects, and very young fishes. It deposits its spawn in March or April. In this country its length seldom exceeds three inches and a half; but in other parts of Europe it seems to arrive at a superior size, and is even found of the length of seven inches. It is of a yellow olive colour, has a large head, slippery skin, and tapers to the tail. It is most readily caught during the night, and its flesh, which grows red by boiling, is esteemed good and wholesome.

insidiator. *Insidious bull-head*.—Head marked above by sharp lines, and on each side by two spines.—Native of the Arabian seas, in which it conceals itself under the sand, and springs on such of the smaller fishes as happen to approach its haunts.

To this genus also appertain *scaber*, *japonicus*, *massiliensis*, *monopterygius*, *madgascariensis*, *niger*, and *australis*.

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Gen. 10. SCORPÆNA.

Scorpæna.

Head large, aculeated, cirrhated, obtuse, scaleless, and subcompressed; eyes approximated; teeth in the jaws, palate, and fauces; gill membrane seven-rayed; body fleshy; one dorsal fin, long; the first rays spinous.

porcus. *Porcine scorpæna*, *little sea scorpion*, or *sea devil*.—Cirrhi at the eyes and nostrils. Common in the Mediterranean. Seldom exceeds a foot in length. Wounds with the spines of its dorsal fin. Flesh tough, and scarcely eatable.

scrofa. *Rufous scorpæna*, or *larger sea scorpion*.—Two cirrhi on the under lip. Larger than the preceding, being sometimes four feet in length. It preys not only on the smaller fishes, but, occasionally, on marine birds. Inhabits the Atlantic, Mediterranean, and northern seas.

horrida. *Horrid scorpæna*.—Scattered over with callous tubercles. Of a very uncouth and forbidding aspect. Measures from 12 to 15 inches in length, and inhabits the Indian seas.

volitans. *Flying scorpæna*.—Thirteen rays in the dorsal fin; six cirrhi, the pectoral fins longer than the body. Like fishes of the exocœtus and trigla genus, it uses its pectoral fins for the purposes of occasional flight. Native of the rivers of Japan, Amboyna, &c. where it is reckoned excellent food.

Besides the preceding, naturalists reckon *plumieri*, *commersonii*, *bicapillata*, *brachiata*, *aculeata*, *barbata*, *antennata*, *capensis*, *spinosa*, and *americana*.

Zeus.

Gen. 11. ZEUS.

Head compressed, and sloping; upper lip arched with a transverse membrane; tongue subulated; gill membrane with seven perpendicular rays, the lowest transverse; body compressed, thin, and shining; the rays of the first dorsal fin ending in filaments.

vomer. *Brasilian dory*.—The second ray of the dorsal and anal fin very long. Of a rhomboidal shape, about six or eight inches long, very thin, and scaleless. Native of the American seas, and sometimes seen in those of the north of Europe. Edible, but not much in request.

insidiator. *Insidious dory*.—With a narrow mouth. Native of the rivers and fresh waters of India.

gallus. *Indian dory*.—The tenth ray of the dorsal and the second of the anal fin longer than the body. Native of the American and Indian seas.

ciliaris. *Ciliated dory*.—With some of the rays in the dorsal and anal fin very long. Native of the Indian seas.

faber. *Common dory*.—The tail rounded; a brown central spot on each side of the body; two anal fins. Grows to nearly 18 inches in length, and weighs from 10 to 12 pounds. The head is abrupt, the mouth wide, the back much arched, and furnished with a row of strong small prickles. The body is covered with very minute scales, dusky brown above, and of a shining greenish yellow on the sides. 'We are indebted (says Mr Pennant) to that judicious actor and *bon vivant*, the late Mr Quin, for adding a most delicious fish to our table, who overcoming all the vulgar prejudices on account of its deformity, has effectually established its reputation.'

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The dory is extremely voracious, and, when first taken, makes the same kind of sound, as the gurnards and scorpænas. It is a native of the Mediterranean, Atlantic, and northern seas. It is fished on the southern coasts of England; but the largest are found in the bay of Biscay.

aper. *Red dory.*—Tail even; body reddish. Resembles the preceding, but is much smaller. Native of the Mediterranean.

opah. *Opah dory.*—Tail somewhat lunated; body reddish, with white spots. This beautiful species measures from four to five feet in length; the general colour sometimes a brilliant silvery green, and sometimes a bright gold colour, variegated with pretty numerous, and moderately large, oval white spots; while the fins and tail are bright scarlet. It is the *zeus luna* of Linnæus. Found, though rarely, in the Mediterranean and northern seas.

quadratus *Square dory.*—Tail even; body cinereous, with transverse dusky bars. Native of the coasts of Jamaica.

Pleuronectes.

Gen. 12. Pleuronectes.

Head small; eyes spherical, both on the same side of the head, and near each other; mouth arched; jaws with teeth, and unequal; gill-membrane, with four to seven rays; the gill-cover, in most of the species, consisting of three plates; body compressed, carinated; the one side somewhat convex, answering to the back; the other, of a paler colour, to the belly; the vent nearer the head than the tail.

The fishes of this genus are remarkable for having both eyes on one side of the head; and they are divided into two sections, according as they have the eyes towards the right, when the animal is laid with its coloured side upwards, with its abdomen towards the spectator; or to the left, when the fish is in the same situation.

* *With eyes towards the right.*

hippoglossus. *Holibut.*—The whole body smooth. Dusky above, pure white beneath. Narrow in respect to its length. Individuals have been taken on the English coast, which weighed from 200 to 300 pounds; and the Icelanders have caught some which weighed 400 pounds. Olafsen mentions, that he saw one which measured five ells; and we are told by the Norwegian fishermen, that a single holibut will sometimes cover a whole skiff. This species, then, is more entitled to the epithet *maximus*, than that to which it is applied. Though it inhabits the Mediterranean, it arrives at a larger size in the northern seas of Europe and America. It is so voracious, that it devours rays, crabs, haddocks, and even lump-fish, of which it seems to be very fond. The part of the body nearest the fins, is fat and delicate, but surfeiting; the rest of the fish is regarded as coarse food. The Greenlanders cut it into thin slips, and dry them in the sun. This fish deposits its spawn in spring, among rocks near the shore.

cynoglossus. *Smaller holibut.*—Body smooth, oblong; teeth obtuse; tail roundish. Very like the preceding, but smaller, and more relished as an article of food. Native of the northern seas.

platessa. *Plaise.*—Body smooth, with six tubercles on the head. Readily distinguished by its very broad and flat shape, its pale brown colour above, and the orange-coloured spots with which it is marked. One of eight or nine pounds is reckoned a large fish, though instances occur of their weighing 15 pounds. They spawn in the beginning of May, and are common in the Baltic and northern seas. The best are said to be taken off Rye, on the Sussex coast, and near Holland. They are in considerable request in the fish-market, though far inferior to the sole and turbot.

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flesus. *Flounder.*—With a rough lateral line, and a series of spines at the base of the fins. Easily distinguished from the rest of the genus by the specific character; and very generally known, as it inhabits every part of the British sea, and even frequents our rivers at a considerable distance from salt water. It likewise occurs in the northern, Baltic, and Mediterranean seas. In size, it is much inferior to the plaise; but it affords a light and wholesome food.

limanda. *Dab.*—Scales ciliated; small spines at the origin of the dorsal and anal fins; teeth obtuse. Of a very broad, ovate shape, yellowish brown above, and white beneath. Inhabits the same seas as the plaise and flounder; but is less common, of a smaller size, and more prized as an article of food.

lævis. *Smear-dab*, or *kit.*—Yellowish brown, with smooth scales; five dusky spots, white beneath. Caught on the Cornish coast.

limandoides. *Long dab.*—Body oblong and rough, lateral line straight and broad. Much longer than the dab. Inhabits the northern seas, and is esteemed at table.

roseus. *Rose-coloured flounder.*—Colour of a delicate rose; and general proportions those of a flounder. Taken in the Thames, and preserved in the Leverian museum.

solea. *Sole.*—Body oblong and rough; upper jaw longest. More narrow and oblong than any other of the genus. Sometimes grows to the length of more than two feet, and to the weight of eight pounds. Its general size, however, is much smaller. Those of moderate size are generally in most request for the table; and next to the turbot, are reckoned the most delicate of the genus. The sole is an inhabitant of the northern, Baltic, Mediterranean, and American seas. On the west coast of Great Britain it attains to a much larger size than on the east. The principal sole-fishery is at Brixham, in Torbay.

diaphanus *Smooth sole.*—White, transparent, with small, thin, deciduous scales. Found about the coasts of Cornwall, where it is called *lantern-fish*.

* * *With eyes towards the left.*

punctatus *Whiff.*—Body broad and rough. Native of the northern sea.

rhombus. *Pearl.*—Body smooth; pale brown above, marked by scattered yellowish, or rufous spots, and white beneath. Resembles the turbot, but is inferior in size. Native of the European seas.

tuberculatus. *Turbot*, or *bret; pleuronectes maximus* of Linnæus.—Body rough. This fish, which is reckoned such delicate eating, is found both in the Mediterranean and northern seas. It is broader and squarer than any of the genus, except the pearl, and is of a dark brown above, marbled with blackish spots of different sizes, and white beneath. Like the rest of this genus, the turbot generally lies in deep water, preying on worms, shell-fish, small fishes, &c. It is taken in great quantities

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tities about the northern coasts of England, as well as on those of France, Holland, &c. They are so extremely delicate in their choice of baits as not to touch a piece of herring or haddock that has been 12 hours out of the sea. Though the turbot and holibut are often confounded in our markets, the former may be easily recognised by the large, unequal, and obtuse tubercles on its upper part.

In this numerous genus are also classed *trichodactylus*, *zebra*, *plagiusa*, *ocellatus*, *rondeletii*, *linguatula*, *glacialis*, *platessoides*, *argenteus*, *barbatus*, *marmoratus*, *pavoninus*, *lineatus*, *bilineatus*, *ornatus*, *dentatus*, *macrolepidotus*, *passer*, *papillosus*, *argus*, *stellatus*, and *japonicus*.

Chætodon.

Gen. 13. Chætodon.

Head small; mouth narrow, with retractile lips; teeth generally setaceous, flexible, moveable, equal, very numerous, and close; eyes round, small, vertical, and furnished with a nictitating membrane; gill-membrane from three to six-rayed; body broad, thin, compressed, covered with hard scales, and coloured; dorsal and anal fins rigid, fleshy, scaly, and generally terminated with pickles.

To avoid much unnecessary repetition, we shall observe, in general, that upwards of 60 species of chætodons have been distinctly ascertained; that they are mostly natives of the American and Indian seas; that they are distinguished by the great depth and highly compressed form of the body, which is often beautifully variegated by transverse, oblique, or longitudinal bands, and covered with strong scales, finely denticulated on the margins; and that the dorsal and anal fins are remarkably broad, and, in many species, of an unusual length.

One of the most remarkable species of this genus is the *rostratus*, *rostrated* or *beaked chætodon*, with an entire tail, nine spines in the dorsal fin, an ocellated spot on the sides, and the beak cylindrical. It is of a roundish-ovate shape, about six or eight inches in length, of a whitish colour, with a dusky tinge on the back, and marked by fine transverse and nearly equi-distant brown bands, with milk-white edges. It is a native of the fresh waters of India, and feeds principally on flies and other small winged insects which hover about the surface of its native waters. When it sees a fly at a distance, alighted on any of the plants in the shallow water, it approaches very slowly, and with the utmost caution, coming as much as possible perpendicularly under the object. Then putting its body in an oblique direction, with the mouth and eyes near the surface, it remains a moment immoveable. Having fixed its eyes directly on the insect, it darts at it a drop of water from its tubular snout, but without shewing its mouth above the surface, from which only the drop seems to rise, and that with such effect, that, though at the distance of four, five, or six feet, it very seldom fails to bring its prey into the water. With the closest attention the mouth could never be discovered above the surface, although the fish has been seen to spout several drops successively, without leaving the place, or in the smallest apparent degree moving its body. This very singular mode of attacking its prey was reported to M. Homel, governor of the hospital at Batavia, and so far excited his curiosity, that he ordered a large tub to be filled with sea-water, and had some of the fishes caught and put into it. When they were reconciled to their confinement, he caused a slender stick, with a fly fastened at the end, to be placed in such a manner on the side of the vessel, as to enable the fish to strike it; and it was not without inexpressible delight, that he daily saw them exercising their skill in shooting at it, with amazing force, and seldom missing their mark. This faculty is possessed by a few other species belonging to very different genera. The flesh of the rostrated chætodon is white and well-tasted.

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Angel chætodon, or *angel-fish* of Catesby, is of a fine gold-green colour, with the scales covered by smaller ones. The pectoral, ventral fins, and tail, are of a vivid orange; and the dorsal and anal, violet-blue at the base, and bright crimson towards the tips.—It is common off Carolina and the Bahama isles, where it is much esteemed for its delicacy. *catesbeii.*

Imperial chætodon, is a magnificent species, growing to the length of a foot or more. Its ground colour is a golden-yellow, which is longitudinally, though somewhat obliquely, striped with very numerous bright blue parallel rays. It is a native of Japan, and said to be superior to the salmon in flavour. *imperator*

Sea bat, or *bat chætodon*, surpasses all the other species in the great extent and breadth of the dorsal and anal fins, both which nearly equal the body itself in size, and are of a somewhat triangular shape. It is a native of Japan. *vespertilio*

Red-striped chætodon, is distinguished by numerous red stripes on the body, and an eye-shaped spot and bristle on the dorsal fin. *setifer.*

Three-coloured chætodon, is golden-yellow on the forepart, jet black behind, except the tail, which is yellow, and red near the end, while the edges of the gill-covers, and of all the fins, are bright red. *tricolor.*

Gen. 14. Acanthurus.

Acanthurus

Teeth small, and in most species lobated; tail aculeated on each side. This genus comprises such species of the Linnæan *chætodon* as, in contradiction to the principal character of that genus, have moderately broad and strong teeth, rather than slender and setaceous ones.

Unicorn acanthurus.—Gray-brown; with a frontal horn projecting over the snout, and two spines on each side of the tail. Of the length of three feet or upwards. Its horn-shaped process is strong and conical, terminating rather obtusely.—It is a native of the Indian and Arabian seas, in the latter of which it is usually seen in shoals of two or four hundred, swimming with great strength, and feeding principally on the different kinds of sea-weed. It is singular that so remarkable a fish should have been entirely overlooked by Linnæus, even in the twelfth edition of the *Systema Naturæ*. *unicornis.*

The other species are denominated *nasus*, *teuthis*, *nigricans*, *militaris*, *triostegus*, *harpurus*, *sohal*, *nigro-fuscus*, *achilles*, *lineatus*, *umbratus*, *meleagris*, and *velifer*.

Gen. 15. Eques.

Eques

Teeth in several rows; body banded.

American knight-fish.—*Chætodon lanceolatus*, Lin. Body oblong; yellowish, with three black bands, the first *americanus.*

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first across the eyes, the second across the thorax, and the third along the body. Native of the American seas.

Trichopus.

Gen. 16. Trichopus.

Body compressed; ventral fins, with a very long filament.

goramy. *Goramy trichopus.*—Rufescent, with a silvery cast on the sides; and the second ray of the ventral fins extremely long. Native of the fresh waters of China, where it is much prized as an article of food.

arabicus. *Arabian trichopus. Labrus gallus*, Lin.—Greenish, with violet and blue stripes, and second ray of the ventral fins very long. Native of the Arabian seas.

satyrus. *Satyr trichopus.*—With sinking forehead, projecting chin, and extremely long, single-rayed, ventral fins. Native of the Indian seas.

pallasii. *Pallasian trichopus. Labrus trichopterus*, Lin.—Brown, with pale undulations, a black spot on each side of the body and tail, and long single-rayed ventral fins. Native of the Indian seas.

monodactylus. *Monodactile trichopus.*—Silvery, with brownish back, and short, single-rayed, rigid ventral fins. Native of the Indian seas.

Sparus.

Gen. 17. Sparus.

Strong cutting or canine teeth, with obtuse and close-set grinders; lips double; gill membrane five-rayed, gill covers scaly; body compressed, lateral line curved behind; pectoral fins rounded.

Of this very extensive genus, most of the species are exotic; and their history is very imperfectly known. Considerable confusion takes place with respect to the characters by which they ought to be discriminated from the *labri*, a family to which they are much allied. We shall briefly notice only a few of the most striking and best known species.

auratus. *Gilt-head*, has a lunulated spot between the eyes. A more permanent character may be assumed from the six cutting teeth in each jaw. This species is about 15 inches long, but sometimes of a much larger size. It is of a silvery bluish cast, with gold-coloured brown, and sometimes with several brownish longitudinal stripes. The body is broad and thin, and the back elevated. The gilt-head is a native of the Mediterranean, Atlantic, and Indian seas; frequenting deep water on bold rocky shores; and living chiefly on testaceous animals. It is said to sleep at stated times, and to be very susceptible of cold. The Greeks and Romans reckoned it a most delicate morsel, and the former held it to be consecrated to Venus.

erythrinus. *Rose sparus*, is remarkable for its beautiful rose-red colour. In size and shape, it resembles the perch. It is a native of the Mediterranean and Indian seas, in the latter of which it is said to acquire noxious qualities.

fasciatus. *Fasciated sparus*, is of a squarish elongated shape; with transverse dusky bands, and the fins edged with black. It is a native of Japan.

chlorourus. *Green-tailed sparus*, is a native of the American seas, and a highly elegant species; having its yellowish and large scales crossed by a green band, green fins, and rose-coloured gill-covers. The green tail is strongly lunulated, and marked by minute pale specks.

A striking disposition of colours likewise distinguishes the *chrysurus*, or *gold-tailed sparus*, which is found in the seas of South America. Its general complexion is a bright rose-red, which is deepest on the back; a gold yellow stripe runs on each side from the gills to the tail, and a second on each side of the bottom of the abdomen. Thoracic Fishes.

spinifer. *Spined sparus*, has the dorsal spines recumbent, and the five in the middle filiform and elongated. It is of a reddish silvery hue, with the back and the lines on the body dusky; shape ovate; and length, a foot and a half. It inhabits the Red sea; and is reckoned a delicious fish for the table.

sciurus. *Squirrel sparus*, *squirrel-fish*, or *grunt.*—Gray-brown, with large scales bordered with yellow, and head marked longitudinally by numerous blue and yellow lines. According to Bloch, the blue lines also run along the body. Native of the American seas. It is the *perca formosa* of Linnæus.

insidiator. *Insidious sparus.*—Red, yellowish on the sides; tail sub-forcipated. Length about ten inches. Native of the Indian seas, where, through its long tubular snout, it shoots a drop of water at the insects on which it feeds, in the same manner as the rostrated chætodon.

galilæus. *Galilæan sparus.*—Greenish, with whitish abdomen. Very common in the lake of Genesareth, and therefore supposed to have been the principal species in the miraculous draught of fishes recorded by St Luke.

desfontainii. *Desfontaine's sparus.*—With 23 rays in the dorsal fin, 11 in the anal, and a black spot on the gill-covers. Inhabits the warm waters of Cassa in Tunis, which, in January, are about 30 degrees of Reaumur's thermometer above the freezing point; but it is also found in the cold and brackish waters surrounding the date plantations at Tozzar.

argus. *Argus sparus.*—Of a silvery blue; with many ocellated brown spots. A very elegant species, of which the native country is uncertain.

scandens. *Climbing sparus.*—Olive-green, with yellowish abdomen, and gold-coloured eyes. Length about a span; skin covered by a blackish mucus. "This fish (says Dr Shaw) is remarkable for its power of climbing, which it performs by the assistance of the spines of its gill-covers, moving itself at pleasure up the stems of trees growing near the waters it frequents. In this situation it was observed in the month of November 1791, at Tranquebar, by Lieutenant Daldorff, who communicated its description to Sir Joseph Banks. It was seen ascending a fissure in the stem of the palm called *borassus flabellifer*, growing near a pool of water, and was observed to move itself forwards by alternately applying the spiny sides of the gill-covers to the sides of the fissure, assisting itself at the same time by the spines on each side of the tail, and had already ascended to the height of more than five feet above the water when it was first observed: it was found to be very tenacious of life, moving about on dry sand, many hours after it was taken."

Scarus.

Gen. 18. Scarus.

Instead of teeth, the jaws are eminent, crenated, and bony, with a toothed margin; gill-membrane five-rayed, gill cover entire, lateral line generally branched.

Cretan

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cretensis. *Cretan scarus.*—Green, yellowish beneath, with very large scales, ramified lateral line, and sublimated tail. Native of the Mediterranean and Indian seas. Common about Crete.

viridis. *Green scarus.*—Yellowish green; with large scales, edged with green; lateral line interrupted towards the tail. Native of the Japanese seas.

rivulatus. *Rivulated scarus.*—Bluish, spotted with black, and marked by longitudinal yellow undulations. Native of the Red sea.

stellatus. *Stellated scarus.*—Oval, blackish; variegated with subhexagonal pale rings. Native of the Arabian seas.

croicensis. *Red scarus.*—Rose-red, with silvery abdomen. Native of the Indian seas.

psittacus. *Parrot scarus.*—Greenish, marked with yellowish lines, and with the edges of the fins, abdominal band, and variegations of the head, blue. Native of the Arabian seas.

purpuratus. *Purpled scarus.*—Dull-green, with three longitudinal serrated purple bands on each side, and blue abdomen. Native of the Arabian seas.

niger. *Black scarus.*—Ovate-oblong; blackish brown, with red lips, and the margin of the fins greenish-blue. Native of the Arabian seas.

ghobban. *Blue-striped scarus.*—Whitish, with the scales marked by transverse bluish bands, and double lateral line. Native of the Arabian seas.

ferrugineus. *Ferruginous scarus.*—Brown-ferruginous, with the jaws and margins of the fins green, and tail even. Native of the Arabian seas.

sordidus. *Sordid scarus.*—Brown-ferruginous, with darker-coloured fins, and rising, even tail. Native of the Arabian seas.

harid. *Scaly-tailed scarus.*—Tail forked, the middle of its back beset with scales. Native of the Arabian seas.

schlosseri. *Schlosserian scarus.*—Gold-coloured, with five dusky spots on each side, brownish back, and nearly even tail. Native of Java.

Gomphosus.

Gen. 19. Gomphosus.

Jaws lengthened into a tubular snout; teeth small, those in the front larger.—This genus, instituted by La Cépède, contains two species, both natives of the Indian seas, and both agreeing in the remarkable form of the mouth, which consists of a tubular process, somewhat truncated at the tip.

cæruleus. *Blue gomphosus.*—Entirely blue. About the size of a tench.

variegatus. *Variegated gomphosus.*—Variegated with red, yellow, and blue. Smaller than the preceding.

Labrus.

Gen. 20. Labrus.

Teeth acute; lips not doubled; gill-membrane six rayed; gill-covers scaly; the rays of the dorsal fin furnished behind with a filiform process; the pectoral fins acuminated; and lateral line straight.

From this very numerous genus, the discrimination of which has never been accomplished with accuracy, we can afford to select only a few species.

zeylanicus. *Ceylonese labrus*, or *Ceylon wrasse.*—Green, purplish beneath, with blue head, and gill-covers variegated with purple. This beautiful fish is a native of Ceylon, where it is reckoned edible.

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jaculator. *Jaculator*, or *shooting labrus.*—Gray, clouded with yellow; five transverse dusky bands; and lower jaw longer than the upper. Darts water on its prey, like the rostrated chætodon and insidious sparus. Native of the Indian seas.

scarus. *Scare labrus.*—Whitish, mixed with red; with transverse appendages on each side of the tail. Native of the Mediterranean; where it feeds principally on fuci, and swims in shoals. It was in high esteem with the ancients as a food, and considered by the Romans as one of the principal delicacies of the table.

ballanus. *Ballan labrus*, or *ballan wrasse.*—Yellow, with fulvous spots, reflex lips, and ramentose dorsal fin. Weighs about five pounds. Appears annually in great shoals off Filey-bridge, near Scarborough.

tinca. *Ancient labrus*, *ancient wrasse*, or *old wife.*—Beak bent upwards; end of the tail circular. Size and habit of a tench. Native of the European seas, and usually found in deep waters, about rocky coasts. Liable to vary much in colour.

psittacus. *Parrakeet labrus.*—Green, with three longitudinal red stripes on each side, and yellow dorsal fin marked by a longitudinal red band. A beautiful species, which inhabits the American seas.

formosus. *Beautiful labrus.*—Red, with longitudinal, interrupted, flexuous, blue streaks; and fins edged with blue.

julis. *Jurella labrus.*—Sides bluish, both marked by a longitudinal, fulvous, and dentated band. Length about eight inches, and form somewhat lengthened. Occurs in shoals in the Mediterranean. The more ancient ichthyologists erroneously considered it as poisonous, and as the most beautiful of the finny tribes.

Ophicephalus.

Gen. 21. Ophicephalus.

Head coated with dissimilar scales; body elongated.

punctatus. *Punctated ophicephalus.*—Dusky, paler beneath, with the head pierced by pores, and the body speckled with black points. Length about ten inches. Frequents rivers and lakes in India; and is reckoned a delicate and wholesome food.

striatus. *Striated ophicephalus.*—Dusky, with the abdomen and fins striated with dusky and whitish variegations. Length about twelve inches. Native of India; inhabiting lakes, and equally esteemed with the former as food.

Lonchurus.

Gen. 22. Lonchurus,

Head scaly; ventral fins separate; tail lanceolate.

barbatus. *Bearded lonchurus.*—Ferruginous-brown; with slightly lengthened nose; two beards at the lower jaw; and the first ray of the ventral fins elongated into a bristle. Length about twelve inches. Native of Surinam.

Sciæna.

Gen. 23. Sciæna.

The whole head covered with scales; gill-membrane six-rayed; a furrow on the back, in which the dorsal fin is seated.

Most of the species of this genus are exotic, and but obscurely known.

Cirrhose

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Cirrhose or *bearded sciæna*, has the upper jaw longer than the lower, and a beard on the latter. It has the habit of a carp, and measures from one to two feet. Native of the Mediterranean. Was valued by the Greeks and Romans as an article of food. *cirrhosa.*

Basse sciæna, or *basse*. *Perca labrax* of Lin.—Subargenteous, with brown back, yellowish-red fins, and dusky tail. Habit of a salmon. Native of the Mediterannean and northern seas; frequently entering rivers. Known to the ancients by the names of *labrax* and *lirpus*, and greatly prized, particularly by the Romans. *labrax.*

Perca.

Gen. 24. Perca.

Jaws unequal, armed with sharp-pointed and incurved teeth; gill-covers consisting of three plates, of which the uppermost is serrated; gill-membrane seven-rayed, the lateral line following the arch of the back; the scales hard and rough; fins spiny; and vent nearer the tail than the head.

Common perch.—The second dorsal fin with 16 rays, of a brown olive, sometimes accompanied by a slight gilded tinge on the sides, and commonly marked by five or six broad, blackish, transverse bars. This well-known fish usually measures from 10 inches to two feet, and weighs from two to four pounds, though some have weighed eight, nine, or ten pounds. The perch inhabits clear rivers and lakes in most parts of Europe, haunts deep holes in gently flowing rivers, spawns early in spring, is of a gregarious disposition, very voracious, and so tenacious of life, that it may be carried to the distance of 60 miles in dry straw, and yet survive the journey. It feeds on aquatic insects and the smaller fishes, and is preyed on by the pike, eel, &c. Its flesh is firm and delicate, and was held in repute at the table of the ancient Romans. In some of the northern countries a sort of isinglass is prepared from the skin. *fluviatilis.*

Sandre perch.—The second dorsal fin with 23 rays; of a larger size, and more like a pike, than the preceding. Native of clear rivers and lakes in the middle parts of Europe. *lucioperca*

Ruffe perch, or *ruffe*.—Dorsal fin with 27 rays, of which 15 are spiny. Length from six to eight inches, and shape more slender than that of the common perch. Feeds on worms, insects, and young fishes, and is frequently preyed on by the pike, larger fishes, and aquatic fowls. Spawns in March and April; inhabits clear rivers in many parts of Europe, especially towards the north; and affords excellent food. *cernua.*

Small perch. Body ovate, compressed, rough. Scarcely exceeding the length of an inch and a half. Native of the Mediterranean. *pusilla.*

Sea perch.—The dorsal fin with 15 spiny rays, and 14 soft ones; the body variegated with dusky lines. Colour red, marked with dusky transverse lines on the sides. Inhabits the Northern, Mediterranean, and Atlantic seas, and is in high esteem for the table. *marina.*

Holocentrus.

25. Holocentrus.

Habit of the genus perca; gill-covers scaly, serrated, and aculeated; scales, in most species, hard and rough.

Sogo holocentrus.—Silvery red, with longitudinal yellow lines on each side. A highly beautiful species, about a foot in length. Native of the Mediterranean, Indian, and American seas, and considered as an excellent fish for the table. *sogo.*

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Spur-gilled holocentrus.—Subargenteous, with brownish back, large scales, and spurred gill-covers. Native of Japan. *calcarifer.*

Surinam holocentrus.—Brownish; with yellowish clouds, red head, and anterior gill-covers ciliated with spines. Native of Surinam, where it is reckoned one of the best fishes which the country produces. *surinamensis.*

26. Bodianus.

Bodianus.

Habit of the genus perca; gill-covers scaly, serrated and aculeated; scales in most species smooth.

Purple-backed bodian.—Gold yellow, with purple back. Shape like that of a trout; length about 14 inches. Native of the South American seas. *bodianus.*

Five-spined bodian.—Rose-coloured, with silvery abdomen, and dorsal fin yellow on the fore part. Native of the Brasilian seas. Accounted good food. *pentacanthus.*

Aya bodian.—Red, with silvery abdomen, single-spined gill-covers, and lunated tail. This highly beautiful species is said to grow to the length of three feet. It is found in the Brasilian seas, and regarded as a delicacy. *aya.*

Large-scaled bodian.—Gray brown, with large rounded scales denticulated at the edges. Length about a foot. Native of the East Indies. *macrolepidotus.*

Spotted bodian.—Olivaceous yellow, with blue spots and reddish fins. Native of Japan. *maculatus*

Louti bodian.—Oblong lanceolate, with smallish violaceous spots, and fins edged with yellow. Native of the Arabian seas. *louti.*

Palpebral bodian.—Somewhat ferruginous, with ochre-coloured eyes, protected by a moveable yellow valve. Shape nearly that of a perch. Native of the seas about Amboyna. *palpebratus.*

Silvery bodian.—Silvery, with bluish back. Native of the Mediterranean. *argenteus.*

Apua bodian.—Red, with the back spotted, the body speckled, and the fins edged with black. Native of the Brasilian seas. *apua.*

Guttated bodian, jew-fish, or *jacob iversten.*—Yellowish brown, with body and fins marked by small ocellated deep brown spots. Native of the Indian and American seas. Esteemed as an edible fish. *guttatus.*

Zebra bodian.—Yellowish, with the body marked by transverse, and the head by longitudinal, brown bands. Native of Japan. *zebra.*

Rogaa bodian.—Blackish rufescent, with black fins. Native of the Arabian seas. *rogaa.*

Lunated bodian.—Blackish ferruginous, with black fins, whitish transparent towards the back part. Native of the Arabian seas. *lunulatus.*

Black and white bodian.—Silvery, with irregular, transverse, black bands. Native of the Indian seas. *melanoleucus.*

Star-eyed bodian.—Silvery, with yellowish back, and orbits spiny beneath. Native of the seas about the Cape of Good Hope. *stellifer.*

Gasterosteus.

Gen. 27. Gasterosteus.

Head oblong and smooth, the jaws armed with small teeth; tongue short and obtuse; palate smooth; eyes moderately sized, scarcely prominent, lateral; gill-membrane

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membrane six or seven-rayed; gill-cover consisting of two plates, rounded and striated; body at the tail carinated at both sides, and covered with shields, distinct prickles before the dorsal fin; the back and lateral line parallel and straight; the ventral fins behind the pectoral, but above the sternum.

aculeatus. *Common stickleback, banstickle, sharpling*, &c. with three spines on the back. Length two inches, or three at most. In the early part of summer, the gills and abdomen are of a bright red, the back a fine olive green, and the sides silvery. Lives only two or three years, is very active and very voracious, devouring the young and spawn of other fishes, worms, insects, and their larvæ. The stronger inhabitants of the waters shun it on account of its spines; but it is infested by intestinal worms. In April and May it deposits its spawn in small quantities on aquatic plants, especially on the white and yellow water lily. It occurs very commonly in ponds, rivers, and marshes, and in some parts, as about Dantzic and the fens of Lincolnshire, in extreme profusion. At Spalding, according to Mr Pennant, they appear in the Welland once in seven or eight years in such amazing shoals that they are used as manure, and a man has got for a considerable time four shillings a-day by selling them at the rate of a halfpenny per bushel.

saltatrix. *Skipping stickleback.*—Eight dorsal spines connected by a membrane. Native of the seas about Carolina, where it is often observed skipping out of the water.

pungitius. *Smaller* or *ten-spined stickleback.*—Ten dorsal spines. The number of spines is sometimes only nine, and sometimes, though rarely, eleven. This is smaller than the common species, seldom exceeding an inch and three quarters. It is found both in seas and lakes, and enters the mouths of rivers in spring.

spinachia. *Fifteen-spined stickleback.*—Fifteen dorsal spines. From five to seven inches long, of a slender form, with the head produced, and somewhat tubular. Frequents shallow places in the European seas, and preys on marine insects, and the spawn and fry of other fishes.

spinarella *Minute stickleback.*—Four serrulated spines at the hind part of the head: the lateral ones as long as the abdomen. Native of India.

To the same genus belong *japonicus, carolinus, canadus.*

Scomber.

Gen. 28. Scomber.

Head compressed and smooth; gill-membrane seven-rayed; body smooth, the lateral line carinated behind, often spurious fins towards the tail.

* *Spinous finlets distinct.*

scomber. *Common mackrel.*—With five finlets. Its ordinary length is from 12 to 16 inches, though it has sometimes been found of a much greater size. Its elegant shape and the beauty of its colouring are too well known to require particular description, and its qualities as an edible fish have been long duly appreciated. It dies very soon after it is taken out of the water, exhibits for a short time a phosphoric light, and partly loses the brilliancy of its hues. It is very voracious, and makes great havock among the shoals of herrings. It dwells in the European and American seas, chiefly affecting the regions within the Arctic circle, and appearing at stated seasons about particular ranges of coast. Its alleged migrations, like those of the herring, begin to be questioned by some acute observers, and it is more probable that it resides at the bottom of the waters during winter at no great distance from the places where it visibly abounds in summer. A film grows over its eye in winter, when it probably conceals itself in muddy bottoms, and becomes torpid. It is very prolific, and deposits its spawn among the rocks about the month of June. The tenderness of its flesh renders it unfit for carriage in a fresh state; but in Cornwall, and several parts of the continent, it is preserved by salting and pickling. Caviar is prepared from the roes on the coasts of the Mediterranean; and the celebrated *garum* of the Romans is said to have been a condiment prepared from this fish.

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colias. *Coly mackrel.*—Bright green and azure. Somewhat smaller than the preceding, which it very much resembles. Found on the coasts of Sardinia.

pelamis. *Bonito mackrel.*—Seven inferior finlets; body marked on each side by four black lines. Resembles the *tunny*, but is more slender. Frequents the Atlantic and tropical seas, persecuting flying fishes and other species, and tormented in turn by internal worms.

thynnus. *Tunny.*—Eight finlets above and below. Usual length about two feet, but sometimes grows to eight, or even ten. The upper part of the body is of a dusky blue, and the abdomen silvery. The tunny is gregarious, and inhabits the Mediterranean, Northern, Indian, and American seas, preying with fierceness on all kinds of smaller fish, and persecuting the mackrel and flying fish. The Greeks and Romans admired its flesh, though rather coarse, and established their tunny-fisheries on various parts of the Mediterranean coast, where this species is still taken in great quantities. The smaller fishes are chiefly sold fresh, and the larger cut in pieces and salted.

* * *Spurious finlets connate.*

trachurus *Scad* or *Horse mackrel.*—Dorsal fin recumbent, lateral line marked. Length from 12 to 18 inches. Native of the European seas, and nearly equal to the common kind in point of flavour.

We forbear to enumerate several other species which have been recently defined, but whose history is still very incomplete, and shall terminate this abridged account of the genus by the

auctor. *Pilot mackrel*, or *pilot fish; gasterosteus ductor* of Linnæus.—Silvery blueish, with four transverse blue bands; four dorsal spines, and tail barred with black. Length about 18 inches; general shape that of the *tunny*, but the head much shorter. Inhabits the American and Indian seas, and has its name from often swimming near or before sharks, which, it is said, it guides to their prey.

Gen. 29. Centrogaster.

Centrogaster.

Head compressed, smooth; gill-membrane generally seven-rayed; body depressed and smooth; fins spiny; ventral fins united by a membrane, which is furnished with four acute spines and six soft rays.

fusescens *Brownish centrogaster.*—Brownish, whitish beneath; tail somewhat forked. Native of the Japanese seas.

Silvery

Thoracic Fishes.

Silvery centrogaster.—Silvery, with a large brown spot on the nape, and a blackish one on the dorsal fin. Native of the Japanese seas.

argentatus.

Saddled centrogaster.—Finlets and dorsal fin connate. Native of the Arabian seas.

equula.

Rhombic centrogaster.—Ventral fins one-rayed. Native of the Red sea.

rhombeus.

Mullus.

Gen. 30. Mullus.

Head compressed, sloping, covered with scales; eyes oblong, approximated, and vertical, with a nictitating membrane; nostrils small and double; jaws and palate rough, with very small teeth; tongue short, narrow, smooth and motionless; gill-membrane three-rayed; gill covers consisting of three finely striated plates; the aperture moderate; body round, elongated, red, with large and deciduous scales.

barbatus.

Red surmullet.—Two cirrhi; the body red. Length from 12 to 15 inches; colour a fine rose-red, with an olive tinge on the back, and a silvery hue towards the abdomen. It is found in the Mediterranean and northern seas, is very strong and active, and feeds principally on smaller fishes, worms, and insects. The Roman epicures expended large sums in purchasing this fish for their tables; contemplated, with inhuman pleasure, the changes of its colours, during its slow expiration; and feasted on it with delight, when it was dressed with rare and costly sauces.

surmuletus.

Striped surmullet.—Two cirrhi, and light-yellow longitudinal lines. Nearly resembliug the preceding, and equally delicate as a food. Inhabits the Mediterranean, and is sometimes found in the Atlantic.

The other species are *japonicus*, *auriflamma*, *indicus*, *bandi*, *vittatus*, *trifasciatus*, *bifasciatus*, *maculatus*, *aureovittatus*, and *imberbis*.

Trigla.

Gen. 31. Trigla.

Head large, mailed, with rough lines; eyes large, round, and placed near the top of the head; gape wide, palate and jaws set with acute teeth; nostrils double; gill-aperture large; cover consisting of one radiated aculeated plate; gill-membrane seven-rayed; body covered with small scales; back straight, with a longitudinal furrow, spiny on both sides; lateral line near the back, straight; belly thick; ventral and pectoral fins large; at each of the latter free and articulated finger-shaped processes.

cataphracta.

Mailed gurnard.—Double fingers, snont forked, and elongated; body mailed; length about 12 inches. Native of the Mediterranean.

lyra.

Piper gurnard.—Triple fingers; nostrils tubular; length from one to two feet; bright rose-red, silvery beneath. Native of the European seas; considered as an excellent fish for the table.

gurnardus.

Gray gurnard.—Triple fingers; back marked with black and red spots; length of the preceding. Native of the European seas, and not uncommon about our own coasts. Feeds on testaceous and crustaceous animals, spawns in May and June, and is good eating.

hirundo.

Tub-fish, or *sapphirine gurnard.*—Triple fingers, lateral line aculeated. Size of the gray gurnard. Native of the European seas. Occasionally springs out of the water to some distance.

Flying gurnard.—Sextuple fingers, connected by a membrane. A highly singular and beautiful species, which iuhabits the Mediterranean, Atlantic, and Indian seas, where it swims in shoals, and frequently flies out of the water to a considerable distance. Abdominal Fishes. *volitans.*

The *carolina*, *alata*, *minuta*, *cavillone*, *punctata*, *adriatica*, *pini*, *chabrontera*, *cuculus*, *lucerna*, *lineata*, *asiatica*, and *evolans*, also belong to this genus.

Gen. 32. Trachichthys.

Trachichthys.

Head rounded in front; eye large; mouth wide, toothless, descending; gill-membrane furnished with eight rays, of which the four lowermost are rough on the edges; scales rough; abdomen mailed with large carinated scales.

Southern trachichthys.—Mailed abdomen. The whole of this curious fish is strongly coated, and of a bright pink ferruginous colour. It is a native of the coasts of New Holland, and is minutely described by Dr Shaw, in his Naturalists Miscellany, and in the fourth volume of his General Zoology; a work from which we have derived much assistance in the compilement of the present article. *australis.*

IV. ABDOMINAL.

The fishes of this order have the ventral situated behind the pectoral fins, or on the abdomen. They are mostly inhabitants of the fresh waters.

Gen. 1. Cobitis.

Cobitis.

Head small, oblong, and scaleless; eye in the upper part of the head; nape flat; gill-membrane from four to six rayed; gill-covers formed of a single plate, shutting close below; body covered with mucus and small deciduous scales, and variegated with bands and spots, almost equal; the tail towards the caudal fin being a little narrowed; back straight, with a single fin; lateral line scarcely visible; vent near the tail, and the tail rounded.

Common or *bearded loche.*—Six beards; head smooth, and compressed. About three inches in length; mouth small, toothless, and placed beneath. Common in clear rivulets in many parts of Europe. Lives on aquatic insects, worms, &c. Spawns in spring, is very prolific, dies very soon after being taken out of the water, and even when placed for any length of time in still water. It is very delicate eating, but quickly loses its fine flavour. *barbatula*

Spiny loche or the *armed loche.*—Six beards, a spine below the eyes. Resembles the preceding, and is found in various parts of Europe, concealing itself below stones, feeding on worms, aquatic insects, and the spawn and fry of fishes. It is about five inches long, is tenacious of life, utters a hissing sound when handled, and is seldom eaten by man. *tænia.*

Great loche.—Eight beards; a spine above the eye. The largest of the genus, inhabiting large lakes, and marshes in the midland countries of Europe. Restless on the approach of stormy weather. *fossilis.*

The other known species are *heteroclita* and *japonica.*

Abdominal Fishes.

Gen. 3. Anableps.

Anableps. Head somewhat depressed; mouth terminal; teeth small, and placed on the jaws; eyes protuberant, with double pupils; gill-membrane six-rayed.

tetrophthalmus. *Four-eyed anableps. Cobitis anableps* of Linnæus.—Yellowish-gray, with longitudinal black lines on each side. Length from six to eight or ten inches. Its general appearance like that of a loche; but its eyes differ from those of every known fish, each being apparently divided into two distinct eyes, united in a common receptacle; on dissection, however, this observation is found to apply only to the anterior half of the organ. This fish is a native of South America, principally frequenting the rivers of Surinam, near the sea-coasts.

Amia. Gen. 3. Amia.

Head bony, naked, rough, and furnished with sutures; teeth acute, and close in the jaws and palate; two beards at the nose; gill-membrane twelve-rayed; body scaly.

calva. *Carolinian amia.*—With a black spot at the tail; small, of a roundish form, and seldom eaten. Inhabits Carolina.

Silurus. Gen. 4. Silurus.

Head naked, large, broad, and compressed; mouth furnished with beards; gape and throat wide; lips thick; jaws dentated; tongue thick, smooth, and very short; eyes small; gill-membrane furnished with from four to sixteen rays; body elongated, compressed, scaleless, covered with viscid slime; lateral line near the back; the first ray of the pectoral fins, or of the dorsal fin, spiny, and dentated backward.

glanis. *Sly*, or *European silurus.*—One soft dorsal fin; six beards. Grows to the length of eight, ten, or even fifteen feet, and to the weight of three hundred pounds; but its ordinary size is from two to three or four feet. It is sluggish, and usually lies half imbedded in the soft bottoms of the rivers which it frequents, with its mouth half-open, moving about its beards, which the smaller fishes mistaking for worms, lay hold of, and are entrapped. It inhabits the larger rivers of Europe, as well as some parts of Asia and Africa, but is in no high estimation as a food.

electricus. *Electric silurus.*—With one adipose dorsal fin, and six beards. About twenty inches long, very broad in the fore-part, depressed, and of a cinereous colour, with some blackish spots towards the tail. Is found in some rivers in Africa, and when struck, gives a galvanic shock, though not so strong as that from the torpedo and gymnotus. It is used as food.

ascita. *Ascitic silurus.*—Brown, ash-coloured beneath, with beards longer than the body; forked tail, and eleven rays in the anal fin. The young of this species are excluded in the form of large ova, the integuments of which they soon break, but adhere to the parent till the yolk is consumed. Native of India.

catus. *Cat silurus.*—The hinder dorsal fin adipose; twenty rays in the anal fin, and eight beards. Inhabits the sea and rivers of North America, preying on all kinds of smaller fishes, and not sparing even those of its own kind. Tastes like an eel, and is much relished by the Americans.

Abdominal Fishes.

The other species are denominated *militaris, bagre, hertzbergii, inermis, galeatus, nodosus, bimaculatus, fasciatus, clarias, quadrimaculatus, erythropterus, batrachus, fossilis, vittatus, atherinoides, asotus, mystus, anguillaris, undecimalis, cornutus, felis, cous, carinatus, docmac, chilensis*, and *bajad.*

Platystacus. Gen. 5. Platystacus.

Habit of silurus; mouth beneath, bearded with cirrhi; body scaleless, depressed; tail long, compressed.

cotylephorus. *Acetabulated platystacus. Silurus asprcdo* of Linnæus. Grows to the length of a foot or more, has a very uncouth appearance, and is remarkable for the many small acetabular processes, or suckers, with which the body is beset. Native of the Indian seas and rivers.

lævus. *Smooth platystacus.*—Eight beards, and plain abdomen. Very like the preceding, but wants the abdominal suckers.

verrucosus. *Warted platystacus.*—Brown, marked above by longitudinal warted lines, with short anal fin. Smaller, and less elongated than the two preceding. Native of the Indian seas.

anguillaris. *Eel-shaped platystacus.*—Brown, with longitudinal white stripes, and the second dorsal, anal, and caudal fin united. Length twelve or fifteen inches. Native of the Indian seas.

Loricaria. Gen. 6. Loricaria.

Head smooth, depressed; mouth without teeth, and retractile; gill-membrane six-rayed; body covered with a hard crust.

costata. *Ribbed loricaria. Silurus costatus* of Linnæus.—Yellowish brown, mailed with a single row of shields on each side; tail forked. This is a species of great strength and boldness, which inflicts very painful and dangerous wounds with its spines. It is a native of the Indian and American seas.

cataphracta. *Armed loricaria.*—One dorsal fin, two beards; length about ten or twelve inches. Much allied to the preceding, but has a rounded tail. Native of the American seas.

callichthys. *Soldier loricaria. Silurus callichthys* of Linnæus.—Brown, with depressed rounded head; double row of scales on each side, and rounded tail. Native of South America, where it is in considerable esteem as a food.

punctata. *Speckled loricaria.*—Yellow, with brownish back; double row of scales on each side; fins speckled with black; and forked tail. Only five or six inches long, but very elegant. Native of the rivers of Surinam.

dentata. *Toothed loricaria.*—Lengthened; yellowish brown; with toothed, bearded mouth, and slightly pointed snout. Native of the Indian seas.

flava. *Yellow loricaria. Loricaria plecostomus* of Linnæus.—Yellow, spotted with brown; two dorsal fins; and tail marked by transverse bands. Native of the Indian seas.

Salmo. Gen. 7. Salmo.

Head smooth and compressed; mouth large; lips small; tongue white, cartilaginous, and moveable; eyes middle-sized; lateral teeth in the jaws and tongue; gill-membrane furnished with four to ten rays; gill-

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cover consisting of three plates; body elongated, covered with round scales minutely striated; back straight; lateral line straight, and near the back; hinder dorsal fin adipose; ventral fins many-rayed.

Most of the fishes of this genus frequent pure and rapid streams; a few of them inhabit the sea, but enter rivers for the purpose of depositing their spawn in spring, and return to the sea in autumn. They feed on insects and other fishes, and their flesh is much relished as a food. We shall confine our notices to a few of the most important and remarkable species.

salar. *Common salmon.*—The upper jaw projecting beyond the under. The general length of the salmon is from two and a half to three feet; but is said to be sometimes found the length of six feet, and Mr Pennant mentions one of 74 pounds weight as the largest he ever heard of. The general colour of both sexes is a silvery gray, of a much darker cast on the back; the sides of the male are marked with many small, dusky and copper-coloured spots, while the markings on the female are larger, more distant, and roundish, or lunated. The male is also of a more slender form than the female. This fish, which is so highly esteemed for the delicacy of its flavour, and which forms such an important article of commerce, occurs chiefly in the salt and fresh waters of the northern regions, being unknown in the Mediterranean and other warm climates; but frequenting some of the rivers in France, which empty themselves into the ocean, and being found as far north as Greenland and the northern parts of North America. It quits the sea at certain periods to deposit its spawn in the gravelly beds of rivers, often ascending to a great distance from their mouths, forcing itself against the most rapid streams, and leaping with surprising agility over cataracts of a considerable height. On the river Liffey, the salmon are often observed to fall back before they surmount the cataract, which is 19 feet high; and baskets are placed near the edge of the stream to catch them as they fall. At the falls of Kilmorack in Scotland, where the salmon are very numerous, the country people are accustomed to lay branches of trees on the edge of the rocks, and thus intercept such of the fish as miss their leap. Alongside one of these falls the late Lord Lovat ordered a kettle full of water to be placed over a fire, and many minutes had not elapsed before a large salmon made a false leap and fell into it. When the salmon enter the fresh water in winter, they are more or less infested with the salmon louse, (*Lernæa salmonea* Lin.) and are then reckoned to be in high season. These insects, however, soon die and drop off, and the fish becomes lean at spawning time. The male and female unite in forming a receptacle in the sand or gravel, about 18 inches deep, for the ova, and having covered up the latter, which are not hatched till the ensuing spring, hasten to the salt water much emaciated, and soon recover their plumpness. The fry appear about the end of March, and are five or six inches in length, in the beginning of May, when they are called *salmon smelts* or *smouts*. The first flood sweeps them in immense swarms into the sea. About the middle of June, the largest of these begin to return into the rivers. Towards the end of July, they are called *gilse*, and weigh from six to nine pounds. Their food is other fish, insects, and worms; but as no food is found in their stomach during spawning time, it is probable that they neglect it during that season. The fishing season commences in the Tweed on the 30th of November, and ends about old Michaelmas day. A particular account of this fishery occurs in the third volume of Pennant's British Zoology, to which we beg leave to refer our readers.—"A person of the name of Graham (says Mr Bingley), who farms the sea-coast fishery at Whitehaven, has adopted a successful mode of taking salmon, which he has appropriately denominated *salmon-hunting*. When the tide is out, and the fish are left in shallow waters, intercepted by sand banks, near the mouth of the river; or when they are found in any inlets up the shore, where the water is not more than from one foot to four feet in depth, the place where they lie is to be discovered by their agitation of the pool. This man, armed with a three-pointed barbed spear, with a shaft of 15 feet in length, mounts his horse, and plunges, at a swift trot, or moderate gallop, belly deep, into the water. He makes ready his spear with both hands; when he overtakes the salmon, he lets go one hand, and with the other strikes the spear, with almost unerring aim, into the fish: this done, by a turn of the hand he raises the salmon to the surface of the water, turns his horse head to the shore, and runs the salmon on dry land without dismounting. This man says, that by the present mode he can kill from 40 to 50 in a day: ten are however no despicable day's work for a man and horse. His father was probably the first man that ever adopted this method of killing salmon on horseback."—In the intestinal canal of salmon is often found a species of *tænia*, about three feet in length; and Dr Bloch mentions, that in a specimen which had been three weeks dead, he found one of these worms still living.

Gray salmon, or *gray*.—With ash-coloured spots, the extreme part of the tail equal. Weighs from 13 to 20 pounds. The head is larger in proportion than in the preceding species; it is a strong fish, and does not ascend the fresh water till August, when it rushes up with great violence, and is seldom taken. *eriox.*

Salmon trout, *sea trout*, or *bull trout*.—Marked with black ocellated spots, the middle brownish, six dots on the pectoral fins. The general appearance very like the common salmon, but seldom equal to it in size. Like the salmon it inhabits the European seas, passing into rivers to deposit its spawn. Its flesh, too, is of equal delicacy. The viscid mucus which covers the skin possesses the quality of exhibiting phosphoric light. *trutta.*

Common trout.—With red spots, the lower jaw rather longer than the upper. The general length of this species is from 12 to 15 or 16 inches; the ground colour yellowish gray, darker on the back, and marked on the sides by several straggling, round, bright-red spots, each surrounded by a tinge of pale blue gray. The colouring however, is subject to considerable variety. The trout is a common inhabitant of European streams and lakes, preferring those that are clear and cold, living on worms, small fishes, and aquatic insects and their larvæ. Like the salmon, it occasionally springs over obstacles in its course. It usually spawns in September or October. Those which are in most request for the table, are natives of the clearest waters.—The gillaroo trouts which are found in the lakes of Galway, in Ireland, are not specifically different from the common, but their stomachs acquire an extraordinary de- *fario.*

gree

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gree of thickness and muscular force, a circumstance which is ascribed to their living much on shell-fish, and swallowing small stones.

hucho. *Hucho salmon.*—Oblong, two rows of teeth in the palate, marked with slightly blackish spots. More slender shaped than the common salmon, and its flesh not so firm. Inhabits the Danube, the Bavarian and Austrian lakes, and the rivers of Russia and Siberia.

alpinus. *Alpine trout*, or *charr.*—Back black, sides bluish, belly reddish yellow. Length about a foot. In great request for the table. Native of the Alpine lakes and rivers, as well as of those of Germany, Lapland, Sweden, &c. Found in some of the lakes of Cumberland and Westmoreland, Loch-Leven in Scotland, &c.

salvelinus *Salvelin trout*, or *red charr.*—About a foot in length, the upper jaw longest. Inhabits nearly the same regions as the preceding, and is equally esteemed for the delicacy of its flavour.

eperlanus. *Smelt salmon*, or *smelt; spirling* or *sparling* of the Scotch.—Head transparent, 17 rays in the anal fin. Of an elegant, tapering form, and of a very peculiar flavour, which some compare to rushes, others to violets, and others to cucumbers. It varies in length, from six to 12 inches, inhabits the seas of Europe, and ascends rivers for the purpose of spawning, early in spring. In the Thames and the Dee, however, they are taken in great quantities in November, December, and January. There is a smaller variety which abounds in the north of Europe.

lavaretus. *Gwiniad salmon*, or *gwiniad.*—The upper jaw longest, 14 rays in the dorsal fin. Resembles a trout, but is thicker in proportion. Inhabits the lakes of the Alpine parts of Europe, and those of Cumberland, Wales, and Ireland. It occurs also in Loch Lomond, in Scotland, where it is called *powan.* A fisherman at Ullswater is said to have taken between seven and eight thousand of this species at one draught. Its usual length is from 10 to 12 inches. According to Dr Bloch, the *gwiniad* also inhabits the northern sea, and the Baltic.

albula. *Marænula salmon.*—Jaws without teeth, the under one longest. Length about six inches; shape like that of a trout, but more slender. Native of several of the European lakes, and much esteemed as a food. At Lochmaben, the only place in Scotland where it occurs, it is called *iuvangis.* According to tradition, it was brought to Lochmaben, from England, in the time of Robert Bruce.

thymallus *Grayling salmon*, or *grayling.*—Upper jaw the longest, 23 rays in the dorsal fin. About the length of 18 inches. Frequents the clearer and colder rivers in many parts of Europe and Asia, particularly those which flow through mountainous countries. It is an elegant species, voracious, and of quick growth; spawns in April and May; has white, firm, and fine-flavoured flesh, and is considered to be in highest season in the middle of winter.

To this genus also belong *lenok, nelma, taisnen, erythrinus, phinoc, salmulus, schiefferm*ü*lleri, gædenü, salmarinus, carpio, lepechini, lacustris, umbla, argentinus, arcticus, stagnalis, rivalis, stroemii, saurus, tumbil, fœtens, grœnlandicus, dentex, gibbosus, notatus, bimaculatus, immaculatus, cyprinoides, niloticus, ægyptius, pulverulentus, anastomus, rhombeus, gasteropelecus, falcatus, fasciatus, friderici, unimaculatus, melanurus, fulvus, migratorius, autumnalis, wartmanni, rostratus, nasus, marœna, peled, pidschan, mudschan, schokur, m*ü*lleri, vimba, oxyrhinchus, leucichthys,* and *edentulus.*

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Gen. 8. Acanthonotus.

Acanthonotus.

Body elongated, without dorsal fin. Several spines on the back and abdomen.

Snouted acanthonotus.—Gray, with the back transversely barred with brown. The only known species of this genus. The specimen described by Bloch measured two feet and a half. Native of the Indian seas. *nasus.*

Gen. 9. Fistularia.

Fistularia.

Snout cylindrical, with jaws at the apex; gill membrane seven-rayed.

Slender fistularia, or *tobacco-pipe-fish.*—Tail bifid and setiferous. Length three or four feet, shape resembling that of an eel; the head about nine inches long, from the eyes to the tip of the mouth. From the middle of the furcature of the tail, proceeds a very long and thickish bristle, like whaleboue, which gradually tapers to a very fine point. The spine of this singular fish is also of a very peculiar structure, the first vertebra being of immoderate length, the three next much shorter, and the rest gradually decreasing as they approach the tail. It inserts its long snout into the hollows of rocks, under stones, &c. to lay hold on the smaller fishes, worms, and sea insects on which it chiefly feeds. Inhabits America and Japan, and is edible. *tabacaria.*

Chinese fistularia, or *Chinese trumpet-fish.*—Simple rounded tail. Body thicker in proportion than in the preceding species. Native of the Indian seas, though its fossil impressions have been found under the volcanic strata of *Monte Boka*, near Verona. *chinensis.*

Paradoxical fistularia.—Finely reticulated, with slightly prominent lines, and lanceolate tail. Length from two to four inches, body angular, and the whole fish bearing a close resemblance to a *Syngnathus.* Native of the Indian seas. *paradoxa.*

Gen. 10. Esox.

Esox.

Head somewhat flat above; mouth and gullet wide; jaws dentated, unequal; the upper plane, under punctured; tongue broad and loose; palate smooth; eyes round, middle sized, and lateral; nostrils double; near the eyes rays; body elongated, covered with hard scales, convex above, compressed at the sides; lateral line straight, nearest the back, scarcely conspicuous; dorsal and anal fins very short and opposite.

Sea-pike, or *spit-fish.*—Two dorsal fins, the anterior spiny. Of a silvery bluish colour, dusky on the back, and slightly tinged with yellow on the head and about the gills. Grows to the length of nearly two feet. Inhabits the Mediterranean and Atlantic; and has somewhat the flavour of the cod. *sphyræna*

Bony-scaled pike.—Upper jaw the longest, scales bony. This last character gives it a very singular appearance. It attains to the length of three to four feet, inhabits the American lakes and rivers, is very voracious, and is an excellent fish for the table. *osseus.*

Common pike, or *pickerel.*—Snout depressed, and nearly equal. Head very flat; the teeth very sharp and numerous, being disposed not only in front of the upper *lucius.*

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jaw, but in both sides of the lower, in the roof of the mouth, and often on the tongue, amounting to at least 700. The ordinary colour of this fish is pale olive gray, deepest on the back, and marked on the sides by several yellowish spots; the abdomen is white, slightly spotted with black. According to Pennant, the largest specimen of English growth weighed 35 pounds. Those of Lapland sometimes measure eight feet. It is a proverbially voracious species. "We have known one, (says Mr Pennant), that was choked by attempting to swallow one of its own species that proved too large a morsel. Yet its jaws are very loosely connected, and have on each side an additional bone like the jaw of a viper, which renders them capable of greater distension when it swallows its prey. It does not confine itself to feed on fish and frogs; it will devour the water rat, and draw down the young ducks as they are swimming about. In a manuscript note, which we found, p. 244. of our copy of *Plott's* History of *Staffordshire*, is the following extraordinary fact: "At *Lord Gower's* canal at *Trentham*, a pike seized the head of a swan as she was feeding under water, and gorged so much of it as killed them both. The servants perceiving the swan with its head under water for a longer time than usual, took the boat, and found both swan and pike dead."—The smaller fishes manifest the same uneasiness and horror at the presence of the pike, as little birds at the sight of the hawk or owl. If we may credit some naturalists of name, the longevity of the pike is not less remarkable than its voracity. Rzaczynski, in his Natural History of Poland, tells us of one that was 90 years old; but Gesner relates, that in the year 1497, one was taken near Hailburn, in Swabia, with a brazen ring affixed to it, on which were these words in Greek characters: "I am the fish which was first of all put into this lake by the hands of the Governor of the Universe, Frederick the Second, the 5th of October 1230."—The pike spawns in March and April, and is said to be of very quick growth.

belone. *Gar-pike*, *gar-fish*, or *horn-fish*.—Both jaws subulated. General length from two to three feet, the body slender, and the belly flat. The back is of a very fine green, beneath which is a rich changeable blue and purple cast, while the sides and belly are of a bright silver colour. The jaws are very long and slender, and the edges of both are armed with numerous short slender teeth. Native of the European seas, arriving in shoals on the British coasts, preceding the mackrel. The spine and bones acquire a green colour by boiling, notwithstanding which it is eaten with perfect safety.

The other species are *barracuda*, *vulpes*, *malabaricus*, *synodus*, *hepsetus*, *argenteus*, *gymnocephalus*, *brasiliensis*, *chirocentrus*, *chinensis*, *aureoviridis*, *becuna*, *saurus*, *cepedianus*, *chilensis*, *viridis*, and *stomias*.

Polypterus.

Gen. 11. Polypterus.

Gill-membrane single-rayed; dorsal fins numerous.

niloticus. *Nilotic polypterus*.—Green, with the abdomen spotted with black. Of a long and serpentine shape, the body being nearly cylindrical, and covered with strong and adhering scales. The pectoral and ventral fins are attached by a scaly base; and the dorsal, to the number of 16, 17, or 18, and of an ovate shape, run along the whole length of the back. Native of the Nile, and one of the best fishes which that river produces, but very rare. The Egyptians call it *bichir*.

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Elops.

Gen. 12. Elops.

Head smooth; numerous small teeth in the margin of the jaw and in the palate; gill-membrane with 30 rays, and armed in the middle externally with five teeth.

saurus. *Saury elops*, *great saury*, *scin-fish*, or *sea gally-wasp*.—The tail armed above and below with a spine. About 14 inches long, and has some resemblance to a salmon, but wants the adipose fin. Native of the American seas.

Argentina.

Gen. 13. Argentina.

Teeth in the jaws and tongue; gill-membrane eight-rayed; vent near the tail; ventral fins with many rays.

sphyræna. *Pearl-bladdered argentine*.—Anal fin nine-rayed. A small brilliant fish, inhabiting the Mediterranean, and affording, by its air-bladder and scales, some of the best kind of silvery matter used in the preparation of artificial pearls.

The other species are *glossodonta*, *carolina*, and *machnata*.

Atherina.

Gen. 14. Atherina.

The upper jaw somewhat flat; gill-membrane six-rayed, a silvery stripe along the side.

hepsetus. *Mediterranean atherine*.—About 12 rays in the anal fin. An elegant species, of the length of six or seven inches, and shaped like a smelt. Native of the Mediterranean and Red seas. Also found on the coast of Southampton, where they are often called by the name of *smelts*.

To the same genus belong *menidia*, *sihama*, *japonica*, *brosonii*, and *pinguis*.

Mugil.

Gen. 15. Mugil.

Lips membranaceous, the under one carinated within; no teeth, but a denticle above the opening of the mouth; gill-membrane 7-rayed; gill-covers smooth, rounded; body whitish.

cephalus. *Mullet*, or *common mullet*.—Five rays in the first dorsal fin.—Length from 12 to 16 inches; colour bluish gray, darker on the back, and silvery on the abdomen. Very common in the Mediterranean and northern seas, chiefly haunting the shallows near the shores, and feeding on marine worms, insects, and plants. It likewise occurs in the Indian and Atlantic oceans. In the spring and early summer months, it ascends rivers. The roe is often prepared into an inferior kind of caviar, called *botargo*; and the fish itself, though not fashionable in our own country, is reckoned excellent for the table. In plentiful seasons, it is dried and salted.

The other species are *crenilabis*, *albula*, *malabaricus*, *tang*, *plumieri*, *cæruleomaculatus*, *chilensis*, and *chanos*.

Exocoetus.

Gen. 16. Exocoetus.

Head scaly, no teeth; jaws convex on both sides; gill-membrane ten-rayed; body whitish, belly angulated; pectoral fins very long, adapted to flying; the rays carinated before.

Oceanic

Abdominal Fishes.

volitans. *Oceanic flying fish.*—Abdomen carinated on both sides. Of a bright silver colour, gradually deepening into purplish brown on the back; the pectoral fins dusky, the dorsal and anal yellowish, and the ventral fins and tail reddish. It is a native of the American and Indian seas, but is occasionally observed in the Mediterranean; and Pennant mentions an instance of its being seen about the British coasts. The largeness of the air-bladder, and the peculiar structure of the mouth, which can be closed while the jaws are open, assist its power of flight.

exiliens. *Mediterranean flying-fish.*—The ventral fins reaching to the tail. The general length of this species is from 12 to 15 or 16 inches; and its general shape is not unlike that of a herring, to which it is also compared as an eatable fish. It is of a bright silvery cast, with a blue or dusky tinge on the upper part. It is frequently observed in the Mediterranean and Atlantic, sometimes singly, and sometimes in shoals. During the decline of its flight, it sometimes falls into ships; the height, however, at which it generally exercises its flight, is about three feet above the surface of the water. From the length and size of the pectoral fins, it is enabled to continue this motion through the air to the distance of 200 or 300 feet, when the fins becoming dry, it is again obliged to have recourse to the water. Here it is persecuted by the dorado, bonito, dolphin, and other predaceous fishes, while, in its aerial career, it is equally harassed by the gull and the albatross.

mesogaster. *American flying-fish.*—Silvery bluish, with the ventral fins situated in the middle of the abdomen. Native of the Atlantic ocean.

commersonii. *Commersonian flying-fish.*—With a dark blue spot on the dorsal fin. Native of the Indian seas.

Polynemus.

Gen. 17. Polynemus.

Head compressed and scaly; snout very obtuse and prominent; gill-membrane with five or seven rays, separate finger-like processes at the pectoral fins.

paradiseus. *Paradise polynemc, the fish of Paradise*, or *mango-fish.*—Seven fingers, and forked tail. Grows to the length of about 12 or 15 inches, and the thoracic filaments are very long, the outer ones often extending beyond the tail, and the others gradually shortening. It inhabits the Indian seas, and is reckoned by much the most delicate fish at Calcutta.

plebeius. *Plebeian polynemc.*—Five fingers, the first reaching beyond the vent, the others gradually shorter. Resembles a mullet, except that the head is much blunted. It sometimes measures upwards of four feet, is a native of the Indian and American seas, and is considered as an excellent fish for the table.

Quinquarius, niloticus, decadactylus, indicus, tetradactylus, virginicus, commersonii, and *plumieri*, compose the rest of the genus.

Clupea.

Gen. 18. Clupea.

Head compressed; mouth compressed, and denticulated within; jaws unequal, the upper furnished with serrated side-plates; tongue short, rough, with teeth turned inwards; eyes middle-sized, round and marginal; gills internally setaceous, their covers consisting of three or four plates, the membranes eight-rayed; body compressed, elongated, covered with scales; lateral line straight, near and parallel to the back; under part of the abdomen forming a serrated ridge; ventral fins often with nine rays, caudal long and forked.

Abdominal Fishes.

harengus. *Herring.*—Without spots; the under jaw the longest. In size, this well-known fish is found to vary very considerably, though the general length may be reckoned from 10 to 12 or 13 inches. The back is of a dusky blue or greenish, and in the recent or living fish, the gill-covers are marked by a reddish or violet-coloured spot. The scales are rather large, and adhere slightly. The fins are rather small, and the tail is much forked. In most specimens, the anal fin has 17 rays. The herring inhabits the northern seas of Europe, and the Atlantic ocean, and is seldom found farther south than the coast of France. Its food principally consists of small fishes, sea worms, and a minute species of crab, *cancer halecum*, which abounds in the Norwegian seas. When it has fed on this last, its intestines are filled with the red ova of the insect, and is unfit for being salted. At spawning time its stomach is always empty, which seems to indicate that, like the salmon, and some other fishes, it is, at that season, quite negligent of food. Herrings spawn at different seasons, some in spring, some in summer, and some in autumn, when they approach our shores in immense shoals. But the reality of their long and periodical migrations is by no means ascertained. On the contrary, it is more probable, that, like the mackrel, they pass the winter in deep water, or in the soft mud at the bottom, at no very great distance from the shores. They are, in fact, found about some of the European coasts at almost every season of the year; and the alleged rapidity of their northern voyages greatly exceeds the swiftest progress of which they are capable. They are the ceaseless prey of several of the cetaceous tribe of animals, of various fishes, and of different sorts of sea fowl, particularly of the gannet, or solan goose. Notwithstanding the great importance of this fish to the inhabitants of modern Europe, we find no certain description of it in any of the Greek or Roman writers. The Dutch engaged in the herring-fishery in 1164, and the discovery of the pickling process is ascribed to *William Beukelen*, of Biervlet, near Sluys. He died in 1397; and Charles V. in honour of his memory, paid a solemn visit to his tomb.

pilchardus. *Pilchard.*—Silvery, with dusky back, and large strongly adherent scales. Very like the preceding, but smaller and thicker, with larger scales, and the dorsal fin placed exactly in the centre of gravity. Very frequent on some of the European coasts. Usually visits the shores of Cornwall in vast shoals, about the middle of July, and disappears on the commencement of winter. On the 5th of October, 1767, there were included in St Ives' Bay 7000 hogsheads, each of which contained 35,000 fish, in all 24 millions.

sprattus. *Sprat.*—With 16 or 17 rays in the dorsal fin. A very small species, like the fry of herring; but it has a strongly serrated abdomen, and only 48 vertebræ in the back-bone, whereas the herring has 56. Inhabits the northern and Mediterranean seas, and approaches the shores in countless swarms, in autumn.

alosa. *Shad.*—Black spots on the sides, the snout bifid. In general appearance resembles the pilchard; but is much

larger,

Abdominal Fishes.

larger, and much thinner in proportion. Native of the Mediterranean and northern seas. In spring, it ascends rivers for the purpose of depositing its spawn. Like the herring, it dies almost immediately on being taken out of the water. Though prepared for the table in many countries, it is rather coarse and insipid.

encrasicolus. *Anchovy.*—The upper jaw longest. Usual length from three to four inches, of a somewhat lengthened form, and covered with large, thin, and easily deciduous scales. Native of the Mediterranean, northern, and Atlantic seas. Spawns from December to March. It is in great request as a pickle, the bones dissolving entirely in boiling. The principal anchovy fishery is about the small island of Gorgona, near Leghorn.

The remaining species are *malabarica*, *africana*, *sinensis*, *thrissa*, *gigantea*, *atherinoides*, *setirostris*, *dorab*, *tuberculata*, *chrysoptera*, *fasciata*, *nasus*, *macrocephala*, and *tropica*.

Cyprinus.

Gen. 19. CYPRINUS.

Without teeth; mouth in the apex of the head, and bisulcated; gill-membrane three-rayed; body smooth and whitish; ventral fins generally nine-rayed.

Most of the cyprini inhabit the fresh waters, and are much esteemed as food. They live on clay, mould, worms, insects, and leguminous and aquatic plants, though some of them also prey on other fishes. Most of them spawn in April or May.

barbus. *Barbel.*—Anal fin seven-rayed, four beards; second ray of the dorsal fin serrated on both sides. Has somewhat the habit of a pike, and is usually found in deep and rapid rivers in most of the middle and southern parts of Europe. It is easily distinguished by its two pair of long and unequal beards. Its ordinary length is from 18 inches to two feet. Though capable of swimming with strength and rapidity, it sometimes allows itself to be taken by the hand by divers employed for that purpose. It is a coarse fish; and the roe is said to operate as an emetic and cathartic.

carpio. *Carp.*—Anal fin nine-rayed, four beards, the second ray of the dorsal fin serrated behind. The most common colour of this species is a yellowish olive, much deeper on the back, with a gilded tint on the side. In our own country it measures from 12 to 16 inches in length; but in warmer climates attains to a much larger size, and sometimes weighs from 20 to 40 pounds. It feeds chiefly on worms and water insects, and frequents the lakes and small rivers in the southern parts of Europe, usually decreasing in size the farther it is removed into a northern region. It is very tenacious of life, and may be kept for a considerable time in any damp place, though not immersed in water; and well authenticated instances are quoted of its attaining to the age of more than a century. It is said to have been introduced into England about the year 1514. In Germany and Poland, it is cultivated as a considerable article of commerce. A carp of three pounds weight will produce 237,000 ova, and one of nine pounds, 621,600. A green pigment is obtained from its bile, and isinglass from its air-bladder. It is reckoned one of the most delicate of fresh-water fishes. A variety occurs in some parts of Germany, with very large scales, and termed by Bloch *rex cyprinorum*.

gobio. *Gudgeon.*—Anal fin eleven-rayed, two beards. General length from four to five or six inches; the body thick and somewhat cylindrical, for the most part of a pale olive brown above, the sides silvery, and the abdomen white. This is a very prolific species, and deposits its spawn, at intervals, in the spring. Inhabits small lakes and gently flowing rivers in most parts of Europe, and is particularly abundant in some parts of Germany, especially in autumn. In request for the table.

Abdominal Fishes.

tinca. *Tench.*—Anal fin with 25 rays; tail entire; body slimy; two beards. The ordinary length of the tench is about 12 or 14 inches; but it varies considerably both in size and colour, according to its situation. It resides in stagnant waters with muddy bottoms, in most parts of the globe, deposits its minute greenish ova in May and June, is very prolific, of quick growth, and is supposed by some to hibernate in the mud of the waters which it inhabits. It is reputed a delicate fish for the table. In Mr Daniel's Rural Sports, we find the following remarkable passage. "A piece of water, at Thornville Royal, Yorkshire, which had been ordered to be filled up, and wherein wood, rubbish, &c. had been thrown for years, was, in November 1801, directed to be cleared out. Persons were accordingly employed; and, almost choked up by weeds and mud, so little water remained, that no person expected to see any fish, except a few eels; yet nearly 200 brace of tench, of all sizes, and as many perch, were found. After the pond was thought to be quite free, under some roots there seemed to be an animal, which was conjectured to be an otter; the place was surrounded, and on opening an entrance among the roots, a tench was found of a most singular form, having literally assumed the shape of the hole, in which he had of course for many years been confined. His length from fork to eye, was two feet nine inches; his circumference, almost to the tail, was two feet three inches; his weight 11 pounds, nine ounces and a quarter: the colour was also singular, his belly being that of a charr, or a vermilion. This extraordinary fish, after having been inspected by many gentlemen, was carefully put into a pond; but either from confinement, age, or bulk, it at first merely floated, and at last, with difficulty, swam gently away. It is now alive and well."

carassius. *Crusian.*—Anal fin ten-rayed, lateral line straight. Length from eight to ten inches; shape very deep, with considerable thickness; colour deep olive yellow, with a silvery tint on the abdomen. Inhabits ponds and large stagnant waters in many parts of Europe. Grows slowly, and is much infested by the *lernæa cyprinacea*. Spawns but once in two years, and is in considerable esteem as an eatable fish.

auratus. *Golden carp*, or *gold fish*. Two anal fins, the caudal transverse and forked. This favourite ornament of our houses and gardens, is a native of the southern parts of China, and exists in its natural state in a large lake in the province of Kiang, whence it has been diffused over the country, and cherished with fondness and attention. It is said to have been first introduced into England in 1691. In its domestic state, it is subject to very considerable variations in colour, form, and even number of fins. It may be fed with fine bread crumbs, small worms, water-snails, yolk of eggs dried and powdered, &c. and should be supplied with a frequent change of water.

Minow.

Abdominal Fishes.

Minow.—Anal fin eight-rayed; a brown spot at the tail; body transparent. A small but elegant and familiar species, frequenting the small gravelly streams in many parts of Europe and Siberia. In our own country it appears first in March, and disappears about the beginning of October, when it secretes itself in the mud. It is gregarious, and fond of warmth, often swimming in shoals near the surface of the water, in clear hot weather. It feeds on herbs and worms, is very prolific, and of a delicate flavour, though seldom prepared for the table, on account of its smallness. It is more frequently used as bait for other fishes. *phoxinus.*

Dace, or *dare.*—Eighteen rays in the anal, and nine in the dorsal fin. Length from six to eight or ten inches. In manners allied to the roach, and inhabits lakes and rivers in many parts of Europe. Little esteemed for the table. *leuciscus.*

Roach.—Anal fin with 12 rays; ventral rays of a blood-red colour. Silvery, with a cast of dull yellow, more dusky on the upper parts; fins red. Frequents deep, still, and clear rivers in most of the middle parts of Europe, often appearing in large shoals, preceded by one or more, apparently stationed as a kind of guard. It spawns about the middle of May, and is very prolific. It usually weighs about a pound, or a pound and a half. Its flesh is white, firm, and well tasted, but not held in any great repute. *rutilus.*

Orf.—Thirteen rays in the anal fin. Length from 10 to 12 inches, or more. Resembles the gold-fish, and kept in small ponds on account of its beautiful appearance. Native of many parts of Germany, Russia, &c. *orfus.*

Rud.—Anal fin with 15 rays; fins red. About 8 or 10 inches long. Native of several parts of Europe, in lakes and rivers with a gravelly bottom. Reputed edible, and in season in summer. *erythrophthalmus.*

Chub.—Fourteen rays in the anal fin; snout rounded. Resembles the tench, but has a more lengthened form, and a thicker head in proportion. Ordinary length from 14 to 18 inches. Native of many parts of Europe, and not uncommon in Great Britain, occurring chiefly in clear and rapid rivers. Rather coarse and unpalatable, and apt to acquire a yellow colour in boiling. *jeses.*

Bleak.—Twenty rays in the anal fin. Length five or six inches; shape slender; colour bright silvery. From its scales is prepared the silvery matter used in the manufacture of artificial pearls. *alburnus.*

Bream.—Twenty-seven rays in the anal fin; the fins brown. Of a very broad or deep shape, and from two feet to two and a half long. Of an olive hue, with a pale or flesh-coloured tinge on the under parts. Inhabits the lakes and rivers of many parts of Europe. As an article of food, it is reckoned rather coarse and insipid. *brama.*

Besides the above, this genus likewise comprehends the *rondeletii, gibelio, blicca, ballerus, pomeranicus, fimbriatus, cirrhosus, falcatus, americanus, björkna, farenus, grislagine, bynni, bulatmai, capœta, caucus, malchus, julus, buphthalmus, quadrilobus, tincaurca, ferrugineus, nigro-auratus, viridi-violaceus, punctatus, amarus, sericeus, capito, cultratus, cephalus, aspius, idus, nasus, serta, dobula, laucastriensis, mursa, regius, labeo, leptocephalus, catastomus, galian, clupeoïdes, gonorhynchus, aphya*, and *rivularis.*

Cartilaginous Fishes.

Mormyrus.

Gen. 20. MORMYRUS.

Snout produced; mouth terminal; teeth several, and emarginated; aperture without gill-cover; gill-membrane single-rayed; body scaly.

In consequence of Geoffroy's recent investigations, this hitherto obscure genus is ranked in the abdominal order; and the number of species has been increased from three to nine. They are all natives of the Nile.

Anguilliform mormyrus, has a sharp snout, equal jaws, 26 rays in the dorsal fin, and a bifid acute tail. *anguilloides.*

The other species are *kannume, oxyrhynchus, salahia, bebé, hersé, cyprinoides, bané*, and *hasselquistii.*

V. CARTILAGINOUS.

THE fishes of this order have their fins furnished with cartilaginous rays. Their lungs are more similar to the gills of fishes than to the pulmonary system of the mammalia and amphibia; and in some of the genera are found both lungs and gills.

Ostracion.

Gen. 1. OSTRACION.

Teeth pointing forward; body mailed by a bony covering.

Triquetral or *three-sided trunk-fish.*—Body triangular and unarmed. This species is of a trigonal shape, measures about 12 inches in length, and except to within a small distance from the tail, is completely enveloped in a bony covering, divided into hexagonal spaces. Its prevailing colour is brown, with a white spot in the centre of each hexagon, which is also marked by fine rays diverging from the centre to the edges. Native of the Indian and American seas, and highly esteemed as an eatable fish among the East Indians. *triqueter.*

The generic characters of the trunk-fishes are readily recognised; but the specific marks are not easily ascertained. Dr Shaw enumerates, in addition to the preceding, *trigonus, biaculcatus, cornutus, tricornis, quadricornis, turritus, concatenatus, nasus, cubicus, mekagris, auritus, striatus, tuberculatus*, and *gibbosus.*

Tetredon.

Gen. 2. TETRODON.

Jaws bony, divided at the tip; body roughened beneath; no ventral fins.

The fishes of this genus, like the diodons, have the power of inflating their body at pleasure, by means of an internal membrane for that purpose; and during the time of inflation, the small spines dispersed over the sides and abdomen are raised in such a manner as to operate as a defence against their enemies. They are chiefly natives of the tropical seas, though sometimes seen in the higher northern and southern latitudes, and are supposed to live principally on the crustaceous and testaceous animals.

Electric tetrodon.—Body brown above, yellow on the sides, sea green beneath, and varied with red, green, and white spots. Length seven or eight inches. Inhabits rocky places among the corals, in the Indian and American seas; and, when touched, affects the hand with a galvanic shock, *electricus.*

Ocellated

Cartilaginous Fishes.

ocellatus. *Ocellated tetrodon.*—Dull green; whitish beneath, with a black crescent over the shoulders, and spot on the back, both edged with yellow. Inhabits the Indian seas, and sometimes the adjoining rivers, particularly those of China and Japan. It is of a very poisonous nature; and the emperor of Japan prohibits his soldiers, under very severe penalties, from eating it. The *sceleratus* is also reputed highly noxious.

The other species are *lagocephalus*, *lineatus*, *hispidus*, *testudineus*, *spengleri*, *honkenii*, *oblongus*, *lævigatus*, *stellatus*, *punctatus*, *melcagris*, and *rostratus*.

Diodon.

Gen. 3. Diodon.

Jaws bony, undivided; body beset with moveable spines.

hystrix. *Porcupine diodon.*—Of a spherical form, with triangular spines. Of a considerable size, sometimes measuring two feet in length. It possesses the power of inflating and contracting itself at pleasure, remarkable instances of which property it is said to exhibit when taken with a line and hook. Its flesh is coarse, though sometimes eaten by the inhabitants of the West Indian islands.

atinga. *Oblong diodon.*—With round spines. Nearly allied to the preceding, and considered as poisonous.

The remaining species are denominated *orbicularis*, *plumieri*, and *liturosus*.

Cephalus.

Gen. 4. Cephalus.

Jaws bony; body terminating abruptly, so as to resemble the head of a fish.

brevis. *Short sun-fish*, or *short diodon*. *Tetrodon mola* of Linnæus.—Body suborbicular, very short and broad, terminating abruptly on the hind part, where it is edged by a shallow fin. The general colour brown, with a silvery cast on the sides and abdomen. Native of the northern seas, where it sometimes arrives at the length of eight or even ten feet, and to the weight of 500 pounds. Also a native of the Atlantic and Ethiopian sea. It is said to exhibit a strong phosphoric light during the night. The *oblong* is probably only a variety of this species, as La Cépède has observed intermediate gradations between the two. The *variegated* is distinguished by whitish undulations and spots; and the pallasian by its silvery hue, brownish back, and spiny carinated abdomen.

Synguathus.

Gen. 5. Syngnathus.

Snout subcylindrical, with terminal mouth; body lengthened, jointed, and mailed; no ventral fins.

ocus. *Great pipe-fish*, or *longer pipe-fish*.—Caudal, anal, and pectoral fins radiated; body hexangular. Generally from twelve to fifteen inches long, but sometimes from two to three feet; of a very slender form, and of a pale yellowish brown colour, with broad alternate zones of a deeper brown. In spring, as in others of this genus, the ova appear in an appropriate channel at the lower part of the abdomen, and the young are excluded from them completely formed. Native of the European seas. The *typhle*, or *smaller pipe-fish*, seems to be only a variety.

hippocampus. *Sea-horse*, or *sea-horse pipe-fish*.—Tail quadrangular, without a terminating fin; body heptangular and tuberculated. General length from six to ten inches; body much compressed; colour greenish brown, varied with darker and lighter specks. In its living state, the head and tail are carried nearly strait, but when dry or contracted, it resembles the skeleton of a horse. It is a native of the Mediterranean, northern, and Atlantic seas.

Cartilaginous Fishes.

foliatus. *Foliated pipe-fish.*—Blackish olive, with white specks, and leaf-shaped appendages. These last are situated on very strong, rough, square spines or processes attached to the back, tail, and abdomen, and give the whole animal a very grotesque and anomalous appearance. This curious species is a native of the Indian seas; but nothing particular seems to be known relative to its habits or natural history.

The *ophidion*, *biaculeatus*, *pelagicus*, *æquoreus*, and *barbarus*, require no particular description.

Pegasus.

Gen. 6. Pegasus.

Mouth beneath, with a retractile proboscis; upper jaw elongated, denticulated, ensiform under the snout and linear; gill-aperture simple, placed before the pectoral fins; body compressed, articulated with bony incisures, and covered with a hard crust; ventral fins placed behind the pectoral.

draconis. *Little* or *dragon pegasus.*—Snout conical. Only three or four inches long, with large pectoral fins, which enable it to support itself for some moments in the air, when it springs occasionally over the surface of the water. Native of the Indian seas.

volans. *Flying pegasus.*—Snout ensiform and denticulated. Length three inches. Native of the Indian seas.

natans. *Swimming pegasus.*—Snout ensiform and unarmed. Length three or four inches; more slender than the preceding. Native of the Indian seas.

Centriscus.

Gen. 7. Centriscus.

Head produced into a very narrow snout; no teeth; the lower jaw longest; gill-aperture waving; body compressed; abdomen carinated; ventral fins united.

scutatus. *Mailed* or *shielded trumpet-fish.*—Back smooth, with a hard shield, like a thin plate; eight inches long. Native of the Indian seas.

scolopax. *Snipe centriscus.*—Body scaly and rough; tail strait and extended. Smaller than the preceding. Native of the Mediterranean and Indian seas. Ranked among edible fishes.

velitans. *Light-armed centriscus.*—Half-shielded, silvery, with subrecumbent dorsal spine. Length about two inches. Native of the Indian seas.

Balistes.

Gen. 8. Balistes.

Head compressed, and an apparent continuation of the trunk, in some species, armed with a spine between the eyes; mouth narrow; eight teeth in each jaw; the two foremost longer than the rest; three interior teeth on both sides, resting against as many lateral ones; gill-aperture narrow, above the pectoral fins; gill-covers wanting; gill-membrane two-rayed; body compressed, carinated on the sides, with scales growing on the skin, and rough with sharp prickles.

Most

Cartilaginous Fishes.

Most of the species of this genus are natives of the Indian and American seas. They can in some degree inflate their abdomen by means of a strong bone, rough with small prickles, which lies under the skin. They feed on other fishes. Some of them are very large, and some remarkable for the brilliancy and variegations of their colours. In general, they are reckoned poisonous.

monoceros. *Uniform file-fish.*—A fin of one ray on the head; rays of the caudal fin carinated. The body is of an oval form, from one to two feet long, and covered all over with very minute spines. The general colour is gray, inclining to brown on the upper parts, and varied with irregular wavings and spots. Just above the eyes is a single spine of considerable length, a little recurved, and serrated on the hind part. Its food chiefly consists of crustaceous and testaceous animals.

capriscus. *Mediterranean file-fish.*—Violet-gray, with red or blue variegations, single ventral fin, and rounded tail. Length of the preceding, and shape ovate. Almost the only species found in the European seas. The rays of the first dorsal fin are so continued as to act in concert with considerable force in raising the fin at the pleasure of the animal.

vetula. *Ancient file-fish*, or *old wife.*—First dorsal fin three-rayed, ventral fin longitudinal; caudal bifid. Length from one to two feet, or more; general colour yellowish-olive, paler beneath. Several blue streaks on the front and cheek, and some transverse and longitudinal strips on the body. This species is supposed to have obtained its name from the mouth, when viewed in front, or from the slightly murmuring noise which it utters when first taken.

undulatus. *Undulated file-fish.*—Black, but waved by oblique red lines, Observed about the shores of Sumatra by Mr Mungo Park.

The other sorts described by the most recent ichthyologists are, *hispidus*, *tomentosus*, *papillosus*, *chinensis*, *ringens*, *liturosus*, *lævis*, *souneratii*, *bicolor*, *virescens*, *fasciatus*, *unimaculatus*, *cinereus*, *maculatus*, *aculeatus*, *verrucosus*, *biaculeatus*, *forcipatus*, *signatus*, *punctatus*, *capistratus*, *kleinii*, *curassavius*, and *assasi*.

Cyclopterus.

Gen. 9. Cyclopterus.

Head obtuse; mouth standing forward; tongue short and thick; jaws armed with small sharp teeth; gill-membrane four-rayed; gill-cover of one plate; body short, thick, and scaleless; ventral fins united into an orbicular membrane.

lumpus. *Lump sucker*, *lump-fish*, *sea-owl* or *cock-paddle.*—Body angulated, with bony tubercles; grows to the length of 19 inches, and to the weight of seven pounds. It is of a deep and very thick shape, and swims edgewise; the back is sharp and elevated, and the belly flat. There are four rows of large tubercles, and the whole skin is rough with smaller ones. On the upper part of the back is a thick ridge, destitute of spines. Beneath the pectoral fins is an oval aperture, surrounded with a fleshy muscular substance, edged with small filiform processes, which act as claspers. By means of this organ it adheres very strongly to any thing it pleases. The belly is of a bright crimson colour. Inhabits the northern, American, and Indian seas. Deposits its orange-coloured ova near the shore in April and May. The Greenlanders boil the roe, which is very large, and eat both it and the fish. In England, the latter is sometimes stewed, but is flabby and insipid. The lump suckers are frequently devoured by seals, which leave the skins; numbers of which, thus emptied, may often be found in the spring, along those districts of shore which are frequented by this species. "It is easy, (adds Mr Pennant), to distinguish the place where seals are devouring this or any unctuous fish, by a smoothness of the water immediately above the spot." The *pavoninus*, or *pavonian sucker*, agrees with this species in all particulars, except size, and is, therefore, probably only a variety. The *gibbosus* of Willoughby, or *pyramidal sucker*, seems also to belong to the same species, and to be distinguished only by the pyramidal elevation of the back.

Cartilaginous Fishes.

minutus. *Small sucker.*—Body naked; snout marked above the mouth by three tubercles. A very small species, which inhabits the Atlantic ocean, and seems to be allied in habit to the common lump-fish. The body is compressed, of a whitish colour, and has two white unequal tubercles on each side.

liparis. *Unctuous* or *snail sucker.*—Body naked; dorsal, anal, and caudal fins united. The length varies from five to eighteen inches. The shape is elongated, thick, compressed; the skin thin and lax, and covered with a viscid humour, like a snail. It is brownish, with darker stripes above, white beneath, and slightly yellow on the head and sides. It inhabits the northern seas, and sometimes ascends rivers.

cornubiensis. *Cornish* or *jura sucker*, or *lesser sucking-fish.*—Of a purplish brown colour, with lengthened front. About four inches long; skin without scales, and slippery. Native of the European seas. Found by Dr Borlase on the coast of Cornwall, and by Mr Pennant in the sound of Jura.

bimaculatus. *Bimaculated sucker.*—Body without scales; pectoral fins placed very high; a round black spot on each side of the ventral membrane. About an inch and a half long; the colour of the head and body fine pink. Inhabits the sea about Weymouth.

The remaining known species of this genus are, *dentex*, *gelatinosus*, *ventricosus*, *lineatus*, and *bispinosus*.

Lophius.

Gen. 10. Lophius.

Head depressed; many sharp pointed teeth; tongue broad, and armed with teeth; eyes on the upper part of the head; nostrils small; gills three; one lateral aperture; pectoral fins placed on the long branchiæ; dorsal and anal fins opposite, and near the tail; body scaleless, covered with a thin and lax skin; vent in the middle; no lateral line.

The fishes of this genus are of a singularly uncouth appearance; the body being thick and shapeless; the head excessively large, and the fins short and broad.

piscatorius. *European* or *common angler*, *frog-fish*, *toad-fish*, *fishing-frog*, *sea-devil*, &c.—Depressed; head rounded. The ordinary length of this species is from two to four feet, though it sometimes measures six or even seven feet. Its form resembles that of a tadpole. The skin of the trunk is smooth, but that of the upper parts marked by various inequalities. The eyes are large and whitish; the lower jaw is considerably longer than the upper. Two or three long thread-like processes

Cartilaginous Fishes.

proceed from the upper part of the head, and some shorter ones from the back, while the edges of the body are fringed at intervals with shorter appendages of a somewhat similar nature. The upper surface is brown, with deeper or pale variegations, and the under surface whitish. The frog-fish inhabits the European seas; swims slowly; lies in ambush, in shallows, half-concealed by sea-plants or mud, and decoying its prey by moving its worm-like processes. It feeds on the dog-fish and smaller fishes. The *cornubiensis*, *cornish* or *long angler*, or *fishing-frog of Mount's bay*, described by Borlase and Pennant, is so nearly allied to this that it may be regarded as only a variety.

histrio. *Harlequin angler*, or *American toad-fish.*—Compressed; of a yellowish brown colour, with irregular blackish spots, and beards on the head and body. This, which is one of the most grotesque and singular of fishes, is a native of the Indian and American seas, growing to the length of ten or twelve inches, and in manners resembling the European angler.

The other species are, *muricatus*, *vespertilio*, *striatus*, *pictus*, *marmoratus*, and *commersonii*.

Accipenser.

Gen. 11. ACCIPENSER.

Head obtuse; mouth placed under the head; retractile, toothless; four beards under the snout and before the mouth.

The fishes of this genus are among the largest of the tribe. They are all inhabitants of the sea, though some occasionally ascend rivers in great shoals. All the species are large, seldom measuring, when full grown, less than three or four feet in length. Their flesh is reckoned delicate and nutritious; and they form a very considerable article of commerce on the banks of the Caspian sea, and many parts both of Europe and America. They feed principally on worms and other fish.

sturio. *Common sturgeon*—Snout obtuse; the transverse diameter of the mouth equal to the longitudinal; the beards on the snout near the end of it; lips bifid. Of a long, slender, and pentagonal form, attaining sometimes to eighteen feet in length, and weighing five hundred pounds. The whole length of the body is covered by five rows of large, strong, and bony tubercles, rounded at the base, radiated from the centre, and terminated above by a sharp curved point in a reversed direction. The whole skin, on the upper parts and sides, is also roughened with very small tubercles of a similar structure. The general colour is cinereous above, and whitish or yellowish beneath. Though generally a sluggish fish, it sometimes springs out of the water with great force. It feeds on fishes, particularly the herring, salmon, mackrel, and coal-fish. It spawns in spring, and is amazingly prolific, Lewenhoeck having found in the roe of one of them 150,000,000,000 ova! It inhabits the ocean, the Mediterranean, and the Red, Black, and Caspian seas, especially such parts of them as are not remote from the æstuaries of large rivers, which they occasionally ascend in great multitudes. In some of the rivers of Virginia they are so numerous that six hundred have been taken in two days merely by a pole, with a strong hook fixed to the end of it. The flesh is very delicate, white, and firm, and when roasted, is said to resemble veal. In this country it is usually served in a pickled state, being imported from America and the Baltic. It is sometimes, however, taken in our rivers in the salmon-nets. The sturgeon was a fish in high repute with the Greeks and Romans, and, according to Pliny, was brought to table with much pomp, and ornamented with flowers, the slaves who carried it being also ornamented with garlands, and accompanied by music. Caviar is made of the dried and salted roe. The skin makes a good covering for carriages.

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ruthenus. *Sterlet sturgeon.*—Brownish, with the sides spotted with pale red, and the body shielded above by a triple series of tubercles. The smallest and most delicate species of the genus. Native of the Caspian sea; found also in the Volga and Ural, and occasionally in the Baltic. In seasons when this fish happened to be unusually dear, Prince Potemkin paid three hundred rubles for a single tureen of sterlet soup, which formed the mere prelude to his repast.

huso. *Isinglass sturgeon*, or *beluga.*—Snout very obtuse, transverse diameter of the mouth less than the longitudinal; beards near the mouth; lips not cleft. Larger than the common species, and sometimes measuring 25 feet in length. The tubercles are smaller than those of the *sturio*, and seem to fall off with age. Inhabits the northern, Caspian, and Mediterranean seas. Isinglass is prepared from its sound or air-bladder, and an inferior sort from the skin, tail, stomach, and intestines. See ICHTHYOCOLLA.

To these may be added *schypa*, and *stellatus*; the first perhaps only a smaller variety of *sturio*, and the latter distinguished by the star-like marks on its head.

Chimæra.

Gen 12. CHIMÆRA.

Head sharp-pointed; spiracles solitary, in four divisions under the neck; mouth under the head; upper lip with five divisions; fore teeth like cutting teeth, two in each jaw; body long, with a single spine on the back; the tail ending in a bristle, and longer than the rest of the body.

monstrosa *Sea-monster*, *northern chimæra.*—Punctured folds below the snout. A singularly grotesque species, inhabiting the northern and Atlantic ocean; frequenting the deepest recesses, preying on smaller fishes and mollusca and testacea; and rarely approaching the shore, except during the breeding season. It is from three to four feet long, of a lengthened and compressed form, tapering to the tail, which is produced into a long and slender filament. The head and eyes are very large; and at the base of each ventral fin, in the male, is a lengthened process, rough with numerous sharp prominences in a reversed direction. The whole body is of a yellow-brown above the lateral line, and of a bright silvery colour beneath it, variegated with numerous irregular deep brown or blackish spots and patches. Its flesh is considered as coarse and uneatable.

calorhynchus. *Elephant fish*, or *southern chimæra.*—Snout produced beneath into an inflected lip. Native of the southern seas.

Squalus.

Gen. 13. SQUALUS.

Head obtuse, from four to seven semilunar spiracles on the sides of the neck; eyes oblong, half covered, placed before the temporal opening; mouth in the under part of the head, armed with several rows of serrated

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serrated sharp-pointed teeth, some of which are moveable, some fixed, and of different forms; body oblong, round, rough, with slender prickles; ventral fins, for the most part, less than the pectoral, close, placed about the vent, and in the males about the organs of generation.

The animals which compose this tribe are entirely marine, and more frequent in the hot than in the temperate climates. In general they are solitary, and often wander to great distances, devouring almost every thing that comes in their way, and that they are capable of swallowing. Some of them will follow vessels several hundred leagues for the carcases and offals. They sometimes attain to an enormous size, as they often weigh from one to four thousand pounds each. Some few species are gregarious, and live on the mollusca and other marine worms. They are all viviparous, and like the rays, protrude their young in pellucid horny cases, terminated at the four corners by long, slender filaments, and which are generally found twisted round corallines, sea-weed, and other fixed substances. Their flesh is so tough, coarse, and unsavoury, that even the young are hardly eatable. Their bodies emit a phosphoric light in the dark.

canicula. *Panther shark, greater* or *spotted dog-fish.*—Nostrils surrounded by a small lobe, and a vermiform appendage, ventral fins separated. Three or four feet long; brownish, with red or black spots; body cylindrical, but compressed at both extremities; skin rough, and when dried, used for polishing and other purposes. Inhabits the sea almost everywhere. The female breeds frequently, and brings about nineteen young at a time.

catulus. *Spotted shark*, or *lesser spotted dog-fish.*—Nostrils surrounded by a small lobe and a vermiform appendage; ventral fins united. Length from two to three feet. Colour pale brick-red, with very numerous small dusky spots. Very common in the European seas, very voracious, and a great annoyance to the fishermen. According to Pennant, it breeds from nine to thirteen at a time. Its liver is said to be highly noxious, inducing long continued stupor, succeeded by an universal itching and loss of the cuticle.

galeus. *Tope.*—Teeth nearly triangular, and dentiiculated on the upper margin. Grows to five feet or more, is round and elongated, and often weighs upwards of 27 pounds. It is of a lighter or darker cinereous hue above, and whitish below. It smells very rank, and is so bold as to pursue its prey to the very edge of the shore. It inhabits the European ocean, and is frequently seen about the British coasts.

zygæna. *Hammer-headed shark*, or *balance-fish.*—Head very broad and transverse, somewhat in the shape of a hammer. This deformed species measures from five to fifteen or seventeen feet. The body is rather slender, and somewhat cylindrical; the head dilated on each side to a great extent, with the eyes which are very large, placed at each extremity. It is brown above, and paler, or whitish beneath. Native of the Mediterranean and Indian seas, where it attacks such as are accidentally exposed to its fury, or are incautiously bathing or swimming in its neighbourhood. The natives of Otaheite, trusting to their dexterity in swimming, appear to hold it in contempt.

Heart-headed shark.—Head very broad and heart-shaped. In other respects greatly allied to the preceding, but is much more rare, and chiefly inhabits the South American seas. *tiburo.*

Blue shark.—Sides of the tail smooth, a cavity on the back of the tail. Of a more slender and elegant shape than the other species, measures from ten to fourteen feet, is of a blue-green above and white beneath. It is very bold and voracious; inhabits the European seas, and frequents several of the British coasts, especially those of Cornwall during the pilchard season. *glaucus.*

Porbeagle shark.—A longitudinal fold on each side of the tail. Length from three to eight feet; shape round, except near the tail, where it is depressed; colour deep on the back, and white or silvery beneath. Inhabits the sea about Cornwall. The *monensis*, or *Beauman's shark* of Pennant, is now regarded only as a variety of *cornubicus*. *cornubicus.*

Basking shark.—With conical teeth, not serrated. Body slender, and from three to twelve yards in length, of a deep lead colour above, and white below. The upper jaw is blunt at the end, and much longer than the lower. The mouth is furnished with a great multitude of small teeth, of which those in front are much bent, and the remote ones conical and sharp pointed. It has two dorsal, two pectoral, two ventral fins, and one small anal fin. This species inhabits the northern seas, and derives its name from its propensity to lie on the surface of the water, as if to bask in the sun, generally on its belly, and sometimes on its back. It feeds on sea-plants and medusæ, and betrays none of that ferocity of disposition which characterizes most of the shark tribe; on the contrary, it seems so little afraid of mankind, as often to suffer itself to be patted and stroked. These animals frequent our seas during the warm summer months, and appear in shoals on the Welsh and Scottish coasts, after intervals of a certain number of years. They are observed in the frith of Clyde and among the Hebrides in small troops of seven or eight, or more commonly in pairs, about midsummer, and disappear about the latter end of July. They swim very deliberately, and generally with their upper fins above water. Sometimes they may be seen sporting among the waves, and springing several feet above the surface. They are pursued and taken by the fishermen for the sake of the oil contained in the liver; that viscus sometimes weighing a thousand pounds, and yielding eight barrels of oil, and two of useless sediment. When pursued, they do not quicken their motion till the boat is almost in contact with them, when the harpooner strikes his weapon into the body, as near the gills as he can. Sometimes they remain in the same place till the united strength of two men is exerted to force the instrument deeper. Then they plunge headlong to the bottom, and frequently coil the rope round their bodies, and endeavour to get rid of the harpoon by rolling on the ground. Discovering that these efforts are vain, they swim with such strength and rapidity, that one instance has occurred of a basking shark towing to some distance a vessel of 70 tons burthen, against a fresh gale. They sometimes run off with 200 fathoms of line, and two harpoons in them, and will employ the men from 12 to 24 hours before they are subdued. A large fish has afforded the captors a pro- *maximus.*

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fit of 20 pounds. "A male of this species (says Dr Shaw) was taken in the year 1801, at Abbotsbury in Dorsetshire, entangled in a fishing seine, and after a violent resistance, was dragged ashore. It is said to have received 17 musket-balls before it expired; its length was 28 feet, and its circumference in the thickest part about 20 feet; its tail, from point to point, near eight feet; the teeth, according to its proprietor, who took the pains to count them, amounted to the number of four thousand." The skin makes excellent shagreen.

carcharias. *White shark.*—Triangular serrated teeth. This species, so remarkable for its powers of destruction, is a native of most seas, but occurs more frequently in the warm than the cold latitudes. It arrives at the length of more than 30 feet, and is rather thicker and broader than most of its congeners. The mouth is very wide, and furnished on the margin of each jaw with from three to six rows of strong, flat, triangular, sharp-pointed, and finely serrated teeth, which can be raised or depressed at pleasure. The general colour of the animal is a pale ash, darker or browner on the upper parts. So great is the strength of the tail, that a young shark of six feet in length, is able by a stroke of this part to break a man's leg; hence it is usual for sailors to cut off the tail the instant they drag a shark on board. Gillius quotes a specimen which weighed four thousand pounds, and another in whose belly was found an entire human body; and Muller asserts, that in one taken at the isle of St Margaret, there was found a horse which had probably been thrown overboard from some ship. The size of the fossil teeth of this species, so often found in the isle of Malta, &c. affords a convincing proof of the enormous specimens which have once existed. Sharks are the dread of sailors in all hot climates, where they constantly attend the ships, in expectation of what may drop overboard; and a man who has that misfortune is almost instantly devoured. In the pearl-fisheries of South America, every negro, to defend himself against these animals, carries with him into the water a sharp knife, which, if the fish offers to assault him, he endeavours to strike into its belly, on which it generally swims off. The officers who are in the vessels keep a watchful eye on these voracious creatures, and on discovering them, shake the ropes fastened to the negroes, to put them on their guard. Many, when the divers have been in danger, have thrown themselves into the water, with knives in their hands, and hastened to their defence: but too often all their dexterity and precaution have been of no avail.

pristis. *Saw-snouted shark*, or *saw fish.*—With a long flat snout, set with teeth on both sides through its whole length. Inhabits the southern and northern oceans, grows to fifteen feet in length, and is readily distinguished by its produced and saw-like snout, which is often preserved in museums.

acanthias. *Picked shark*, or *picked dog-fish.*—Dorsal fin spinous; body somewhat round. Length from three to four feet; colour brownish ash above and white beneath; rough, with minute prickles, hooked backwards. Common in the European seas, especially about the coasts of Scotland and Norway. When split and dried, it is eaten by the common people.

squalina. *Angel-shark*, or *angel-fish.*—Pectoral fins very large and emarginated before. A deformed species, with large head and pectoral fins, and depressed body, attaining to six or eight feet in length. It is a native of the European seas, and is extremely voracious, fierce, and dangerous. It produces twelve or thirteen young at a birth.

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The other known species of this genus are *vulpes*, *stellaris*, *mustelus*, *spinax*, *centrina*, *philippinus*, *cinereus*, *spinosus*, *isabella*, *cirrhatus*, *barbatus*, *africanus*, *ocellatus*, *griseus*, *americanus*, *squamosus*, *denticulatus*, *punctulatus*, *zebra*, *gronovianus*, *tentaculatus*, and *semisagittatus*.

Gen. 14. Spatularia.

Spatularia.

Spiracles single on each side of the neck, concealed by a large gill-cover; snout produced, and shaped like a spatula; mouth beneath the head, large, and furnished with sharp serrated teeth.

reticulata. *Reticulated spatularia.*—In habit and appearance this remarkable species is allied to the sharks, but distinguished by its thin snout, of the form of a spatula, and nearly equal in length to the whole remainder of the animal. Its history and manners are very imperfectly known.

Gen. 15. Raia.

Raia.

Spiracles on the under part of the neck, ten on each side, oblique; mouth under the head, small, acuminated, as if continuous with the breast, transverse and dentated; body thin, depressed, and of a rhomboid figure.

The species of this genus are entirely confined to the sea, and, being destitute of an air bladder, live chiefly at the bottom, generally in deep water, covering themselves in winter in sand or mud. They live on shell-fish, or other animal substances that fall in their way. Some of them become of a size so large as to weigh two hundred pounds and upwards. They seldom produce more than one young at a time, which, as in the sharks, is inclosed in a four-cornered capsule, ending in slender points, but not, as in the former, produced into long filaments. The liver is large, and often produces a great quantity of oil. They are mostly edible.

torpedo. *Torpedo, torpedo ray, cramp ray, cramp fish*, &c.—Wholly smooth. The body of this species is of a somewhat circular form, slightly convex above, marked along each side of the spine by several small pores; about eighteen inches or two feet in length, and for the most part of a pale reddish brown on the upper surface, sometimes marked by five large circular and dusky spots, and whitish or flesh-coloured beneath. It inhabits most seas, but seems to thrive best in the Mediterranean, usually lying in water of about forty fathoms depth, in company with some of its congeners. It preys on smaller fish, which it is supposed to stupefy by its electric or galvanic faculty. This property, which has been so much exaggerated both by ancient and modern writers, is nevertheless, sufficiently remarkable. From some experiments which were made by Mr Walsh on a very stout and healthy fish, it appears that no spark could be discovered to proceed from it, and that pith-balls were never found to be affected by it. When insulated, it gave a shock to persons who were likewise insulated,

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insulated, and even to several who took hold of each other's hands; this it did forty or fifty times successively, and with very little diminution of force. If touched only with one finger, the shock was so great as to be felt with both hands. Yet the animal was not able to transmit the shock across the minutest tract of air, nor from one link of a small chain freely suspended to another, nor through an almost invisible separation made by a penknife in a slip of tin-foil pasted on sealing-wax.

batis. *Skate.*—Back smooth in the middle, with one row of spines. Common in the European seas. The general colour on the upper parts is a pale ash-brown, varied with several dusky undulations, and of the under parts white, marked with numerous distant black spines. In the male, the pectoral fins are bent towards their tips or edges with numerous small spines. In October, the skate is usually poor and thin, but begins to improve in November, and is reckoned to be in the highest perfection in May. Willoughby makes mention of a single skate of two hundred pounds weight, which was sold in the fish market at Cambridge to the cook of St John's College in that university, and was found sufficient to dine the whole society, consisting of more than 120 persons.

oxyrinchus. *Sharp-nosed ray.*—Ten aculeated tubercles along the middle of the back. In shape, resembles the preceding, but has a longer and sharper snout in the form of a spontoon. Native of the Mediterranean and northern seas.

miraletus. *Mirror ray.*—Back and belly smooth; spines at the region of the eyes, and a triple row of them at the tail. Each of the pectoral fins is marked about the middle, or near the body, with a large circular, eye-shaped spot, consisting of a purplish or dusky circle, with a whitish or yellowish centre. Inhabits the Mediterranean.

rubus. *Rough ray.*—One row of prickles on the back, and three on the tail. Greatly allied to the thorn-back; and rough, with many spines. Inhabits the Mediterranean and other seas.

pastinaca. *Sting ray.*—Body smooth; long serrated spine on the fore part of the tail; no dorsal fin. Shape somewhat rhomboidal; snout pointed; colour of the body yellowish olive above, and whitish beneath. With its long flattened spine, which is finely serrated in a reverse direction on both sides, it is capable of inflicting very severe wounds. As it is annually cast, the new spine sometimes arrives at a considerable size before the old one drops off, in which state the animal has been occasionally described as a distinct species. Though formerly supposed to contain a very active poison, this weapon is found to be wholly destitute of any venomous quality. Inhabits the European, Red, and Indian seas, and is ranked among the edible rays.

clavata. *Thorn-back.*—Prickly; teeth tuberculated; a transverse cartilage on the abdomen. Resembles the common skate, but is somewhat broader in proportion, and is easily distinguished from it by the very strong curved spines with which its upper surface is covered. It is an inhabitant of the Mediterranean and other seas, and esteemed as a food. The thorn-back begins to be in season in November, and continues so later than the skate; but the young of both are good at all times of the year.

To complete the specific catalogue of this genus, we have to add *fullonica, eglanteria, acus, nigra, picta, undulata, alba, marginata, chagrinea, aquila, guttata, fasciata, lymna, cuculus, sephen, tuberculata, poecilina, diabolus, manatia, giorna, fabroniana, banksiana, fimbriata, maculata, bicolor, sinensis, rhinobatos, thouiniana, djiddensis*, and *cuvieri*.

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Gen. 16. PETROMYZON.

Petromyzon.

Head more slender than the body; mouth larger above than below; teeth orange-coloured, hollow within, surrounded with a fleshy rim, curved within, broad below; seven spiracles at the sides of the neck; a fistulous opening at the back part of the head; no pectoral or ventral fins.

marinus. *Lamprey, great lamprey*, or *sea lamprey.*—Mouth within covered with papillæ; the hinder dorsal fin separate from the tail. In general appearance, approaches nearly to the eel tribe, especially to the murænæ. Though it sometimes exceeds three feet in length, the British specimens are usually of inferior size. Its general colour is a dull brownish olive, clouded with yellowish white variegations; the fins are tinged with dull orange, and the tail with blue. On the top of the head is a small orifice for the discharge of the superfluous water taken in at the mouth and gills. Among the cartilaginous fishes, none is so destitute of all appearance of real bone as the lamprey, in which, the spine itself is no other than a mere soft cartilage, without any processes or protuberances. The heart, instead of being inclosed in a soft pericardium, as in other animals, is guarded by a strong cartilaginous one; and the liver is of a fine grass-green colour. It inhabits the ocean, and ascends rivers chiefly during the latter end of winter and the early months of spring. It is viviparous; and the young are of slow growth. Though capable of swimming with rapidity, it is more commonly seen attached by the mouth to some large stone or other substance, and that with such power of adhesion, that a weight of more than twelve pounds may be raised without forcing the fish to forego its hold. It is supposed to live principally on worms and young fish. Like the eel, it is remarkably tenacious of life, the several parts, when cut in pieces, continuing to move, and the head strongly attaching itself for several hours to a stone, though by far the greater part of the body be cut away from it. "As an article of food, (observes Dr Shaw), the lamprey has for many ages maintained its credit as an exquisite dainty; and has uniformly made its appearance at the most splendid of our ancient entertainments. The death of King Henry I. it is well known, is attributed to a too luxurious indulgence in this his favourite dish. It still continues to be in high esteem; and we are told by Mr Pennant, that the city of Glocester continues to send yearly, at Christmas, a present of a rich lamprey pye to the king. It sometimes happens that the lampreys at that season are so rare, that a guinea is demanded for the price of a single fish. They are most in season during March, April, and May, and are observed to be much more firm when fresh arrived from sea than when they have been a considerable time in fresh water. They are found in several of the British rivers, but that which is most celebrated for them is the Severn."

fluviatilis. *Lesser lamprey*, or *lampern.*—The hinder dorsal fin angulated.

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angulated. From 10 to 15 inches long; the back brown or dusky, sometimes clouded, or mixed with blue; the upper part of the body marked by numerous annular lines, and the whole under sides silvery. Inhabits the sea, and ascends, in spring, most of the European rivers, in which it is found much more frequently and plentifully than the great lamprey. It is often potted with the latter, and by some preferred to it, on account of its milder taste. The Dutch purchase vast quantities of this species as bait for their cod and turbot fisheries. In the river Bauster, in Courland, great quantities are taken from beneath the ice, with nets; they are much larger than those found elsewhere, and are packed in snow, and sent to any distance; and, when put into cold water, recover themselves. This species is so tenacious of life, that it will live many days out of the water.

branchialis. *Minute lamprey* or *pride.*—The hinder dorsal fin linear; the lips behind lobated. Has a worm-like appearance; measures from four to seven inches in length; is not observed to adhere to other bodies; inhabits the European rivers, and is more frequent in the Isis than elsewhere, in England.

The remaining species are *planeri*, *ruber*, *sanguisuga*, *argenteus*, *plumbeus*, and *bicolor*.

Gastrobranchus.

Gen. 17. Gastrobranchus.

Body eel-shaped; mouth beneath, with numerous pectinate teeth; two spiracles beneath the abdomen.

cæcus. *Blind gastrobranchus. Myxine glutinosa*, Lin.—Livid, paler beneath; with eight beards at the mouth. Removed to the class of fishes, in consequence of Dr Bloch's accurate examination of its external and internal structure. In general appearance, in the situation of the mouth, and in the orange colour of the teeth, it approaches very near to the lamprey. But it is remarkable for the total want of eyes, no vestige of any such organ being discoverable by the most attentive examination. The body is destitute of scales, lateral line, and fins, except that shallow one which forms the tail. Beneath the body, from head to tail, runs a double row of equidistant pores. The spiracles, which are a pair of oval apertures, are situated beneath the body, at some distance from the head. This singular species is said to enter into the bodies of such fishes as it happens to find on the fishermen's hooks, and which consequently have not the power of escaping its attack, and by gnawing its way through the skin, to devour all the internal parts, leaving only the bones and the skin remaining. Such is its uncommon glutinous nature, that, if put into a large vessel of sea water, it soon renders the whole so viscid, as easily to be drawn out into the form of threads. It inhabits the northern seas, and seems also to occur in those of the southern hemisphere.

dombeyi. *Dombeyan gastrobranchus.*—Head tumid. Much larger than the European species; the head rounded, and larger than the body; four beards on the upper lip, the number of those on the lower uncertain, the specimen being described in a dried state. Eyes and nostrils imperceptible. Native of the South American seas. Observed by M. Dombey, and described by La Cépède from the dried skin in the Paris museum.

Naturalization, &c of Fishes.

Before we conclude this article, it may be proper to direct the reader's attention to M. Nouel's paper relative to two methods of multiplying fishes. The first consists in conveying from the lakes to the rivers, and from the rivers to the lakes, fish found only in one of them; the second, in introducing into fresh water, as it were insensibly, and by means of artificial ponds, fish produced in salt water, giving the preference to those species, which, by their habits and manner of living, might be most adapted to this kind of naturalization.

The first of these methods has been successfully practised in Germany, with regard to the shad, in ponds and clear stagnant waters, with a bottom of sand or gravel. Perch and trout have, in like manner, been conveyed into lakes and rivers in Scotland, and have thriven remarkably well. The carp, which affects a warm temperature, has been successively introduced into the rivers and ponds of Prussia, Denmark, and England. M. Poivre first brought the *gourami* of Bengal into the isle of France, where it has greatly multiplied.

"Our rivers (says this judicious writer), do not contain more than about twenty indigenous species, and some migratory fishes, which at certain periods of the year ascend to a certain distance from their mouths, or, like the salmon, swim towards their sources as far as they can. The small rivers possess still fewer species; the greatest part even are confined to the tench, the trout, eels, and some smaller fish of little value. How advantageous would it be to introduce into these rivers a multitude of foreign fish, which, in these waters could find aliment more agreeable to their taste, and which would enjoy a temperature as analogous to their wants, as favourable to their reproduction!

"The Seine, which I shall take as an example, nourishes many species of *salmo* and *cyprinus:* but how many other fish of the same kind might be propagated in it! If the Seine possess the salmon, it wants the *thymallus*, the *umber* of Auvergne, the *lavaretus*, the *murœna* of Germany, the *grilse* of Scotland, the *pala* of Swisserland, the *ferra* of the lake of Geneva, &c. Why should not the *carp* of the lago di Guarda, and the *schwartz-ritter* of the lakes of Berchstoldgaden, an excellent kind of salmon, highly praised by Baron de Moll, a naturalist of Salzbourg, succeed in France, if that bottom, to which they are most attached, were procured for them, at the foot of the Cevennes or the Vôges? Why might they not be afterwards gradually introduced into our small rivers? Can it be believed, that the numerous tribe of the trout kind, which swarm in the rivers of Scotland, would refuse to supply our colonies with their species? No. There can be no doubt that they would bring thither that fecundity, abundance, and riches, which render them so valuable to their native streams. The case would be the same with the *boudelles* and *hiiglings* presented to us by the lakes of Swisserland, and with the gudgeon, the *cyprinus ballarus*, and the *salmo umbla*, bred in the rivers of Lower Germany. Let us open, then, with these countries a philosophical and liberal exchange of the best fish of France for those of which we wish to be possessed."

Nature herself seems to point to the success of the second method. In many instances, salmon and sturgeon have habituated themselves to a fresh-water residence.

Naturalization, &c. of Fishes.

dence. Pallas discovered the sea-dog in the lake Baikal; and Liancourt found the herring in several of the rivers of North America. It likewise deserves to be remarked that the large plaise, transported from the North sea to the ponds of East Friesland, have increased by myriads, and imparted great value to water which was formerly unproductive.

"In the year 1799, (continues M. Nouel), I had the honour of reading, in one of the sittings of the National Institute, a memoir on the means and advantages of naturalizing the herring, a salt-water fish, in the waters of the Seine, near its mouth, &c. The account of the processes for accomplishing this end, which I there pointed out, are not susceptible of analysis, and cannot, therefore, be introduced into this essay; it will be sufficient for me to say, that the report of La Cépède, Cuvier, and Tessier, was entirely in their favour. At present, I am still more convinced of the efficacy of the means which I then proposed; and I have no doubt that, if artificial ponds were formed on the edges of rivers, the experiment would be attended with complete success. 'Every man, (says Dr Franklin), who catches a fish, draws from the water a piece of money.' Let not the maxims and example of this philosopher be lost to posterity; let them rather produce fruit, like strong and vigorous seed sown in a fertile soil. Having observed in New England, that the herrings ascended from the sea into one river of that country, while a single individual was never seen in another river, separated from the former by a narrow tongue of land, and which communicated also with the sea, this philosopher took the leaves of some plants on which the herrings had deposited their ova, already fecundated, and conveyed them to the river which was deprived of the annual visit of these fish. The success of this experiment surpassed his expectations; the ova were completely productive; and the following year the river was peopled with a numerous shoal of herrings, which, since that time, have continued to frequent it.

Naturalization, &c. of Fishes.

"This fish is not the only one which I wish to see naturalized in fresh water; to the herring I would add several species of *pleuronectes*—also the mullet, goby, whiting, gar-fish, and perhaps, one or two species of the gurnard. I would pay the greatest attention possible to the nature of the water proper for each species. This happy choice is the principal condition, and that which could ensure success; but I would select in particular for this colonization, the fish found in lakes, which, though little known, are more numerous than is commonly supposed, and ought to be so."

By the adoption of this plan, which is susceptible of more ample developement, society would gain an increased quantity of provision, and the naturalist would multiply his opportunities of observation.

For the modes of preserving fish in cabinets, see PRESERVING *Fish*, means of.

EXPLANATION OF PLATES.

Plate CCLXXIX.

Explanation of Terms.—*a*, (fig. 2.) pectoral fins; *b*, ventral fins; *c*, *c*, anal fins; *d*, caudal fin, or tail; *e*, *e*, *e*, dorsal fins; *f*, bony plates that cover the gills; *g*, branchiostegous rays and their membranes; *h*, lateral or side line.

Fig. 1. *Anguilla Conger*. *Conger Eel.*—Example of apodal fishes, in which the ventral fins are wanting. The launce or sand-eel, the wolf-fish, and sword-fish, belong to this order.

Fig. 2. The Haddock, an example of jugular fishes, in which the ventral fins *b*, are placed before the pectoral fins *a*. To this order belong the dragonet, the cod-fish, the blenny, &c.

Fig. 3. The Father-lasher, an example of thoracic fishes, in which the ventral fins *a*, are placed beneath the pectoral *b*; as in the bull's-head, the dory, the mackrel, the perch, &c.

Fig. 4. The Minow, an example of abdominal fishes, having the ventral fins *a*, placed behind the pectoral fins *b*. To this order belong the salmon, the herring, the carp, &c.

Fig. 5. The Dog-fish, an example of cartilaginous fishes, in which the muscles are supported by cartilages instead of bones, and which breathe by means of apertures placed near the neck instead of gills; *a* the lateral apertures.

Fig. 6. *Gymnotus Electricus*, Electrical Gymnotus, or Cramp-fish.

Fig. 7. *Trichiurus Lepturus*, Silvery Trichiurus.

Fig. 8. *Anarchichas Lupus*, Sea-wolf.

Fig. 9. *Odontognathus Aculeatus*.

Fig. 10. *Ammodytes Tobianus*, Sand-eel.

Fig. 11. *Ophidium Barbatum*, Bearded Ophidium.

Plate CCLXXX.

Fig. 12. *Sternoptyx Diaphana*, Transparent Sternoptyx.

Fig. 13. *Leptocephalus Morrisii*, Morris Lauoce.

Fig. 14. *Stylephorus Chordatus*, Chordated Stylephorus.

Fig. 15. *Callionymus Dracunculus*, Sordid Dragonet.

Fig. 16. *Uranoscopus Scaber*, Bearded Star-gazer.

Fig. 17. *Trachinus Draco*, Dragon Weever.

Fig. 18. *Gadus Molva*, Ling.

Fig. 19. *Blennius Pholis*, Smooth Bleony.

Fig. 20. *Kurtus Indicus*, Indian Kurtus.

Fig. 21. *Echineis Remora*, Indian Remora, or Longest Sucking-fish.

Plate CCLXXXI.

Fig. 22. *Coryphæna Hippurus*, Dolphin.

Fig. 23. *Macrourus Rupestris*, Long-tailed Immunet.

Fig. 24. *Cottus Scorpius*, Lasher, Bull-head, or Father-lasher.

Fig. 25. *Scorpæna Antennata*, Antennated Scorpæna.

Fig. 26. *Zeus Faber*, Common Dory.

Fig. 27. *Pleuronectes Platessa*, Plaise.

Fig. 28. *Chætodon Rostratus*, Beaked Chætodon.

Fig. 29. *Acanthurus Unicornus*, Unicorn Acanthurus.

Fig. 30.

Fig. 30. *Eques Americanus*, American Knight-fish.
Fig. 31. *Trichopus Satyrus*, Satyr Trichopus.

Plate CCLXXXII.

Fig. 32. *Labrus Cyanopterus*, Blue-finned Labrus.
Fig. 33. *Sciæna Unimaculata*, Single-spotted Sciæna.
Fig. 34. *Perca Cernua*, Ruffe, or Ruffe Perch.
Fig. 35. *Gasterosteus Spinachia*, Fifteen-spined Stickle-back.
Fig. 36. *Mullus Auriflamma*, Oriflamme Surmullet.
Fig. 37. *Trachichthys Australis*.
Fig. 38. *Cobitis Tænia*, Spiny loche.
Fig. 39. *Esox Aureo-viridis*, Gold-green Pike.
Fig. 40. *Exocœtus Volitans*, Oceanic Flying-fish.

Plate CCLXXXIII.

Fig. 41. *Ostracion Cornutus*, Horned Trunk-fish.
Fig. 42. *Diodon Brevis*, Short Sun-fish.
Fig. 43. *Centriscus Scolopax*, Snipe Centriscus.
Fig. 44. *Pegasus Draconis*, Dragon Pegasus.
Fig. 45. *Accipenser Huso*, Isinglass Sturgeon.
Fig. 46. *Squalus Canicula*, Panther Shark.

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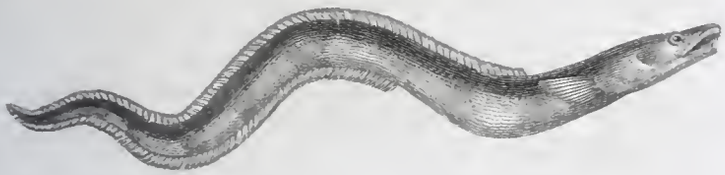

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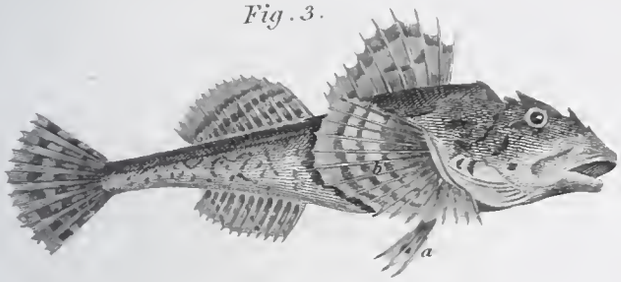

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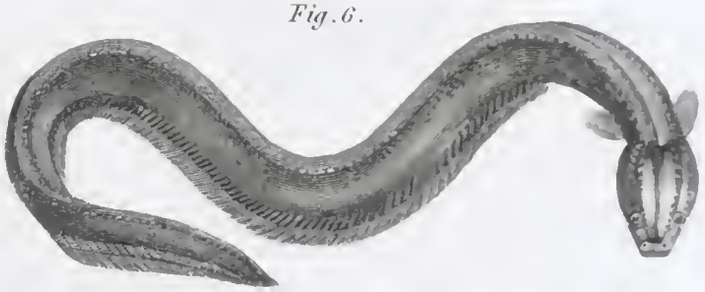

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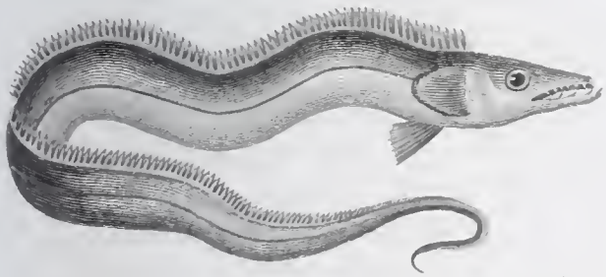

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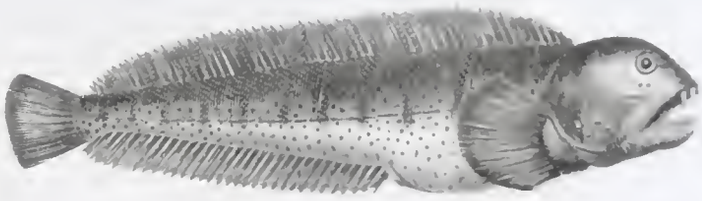

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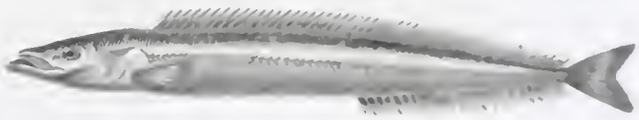

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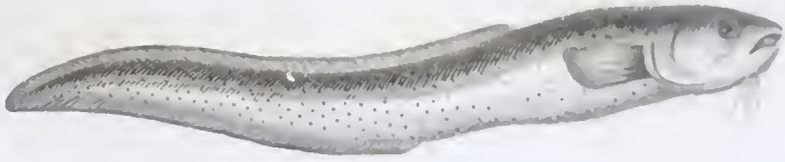

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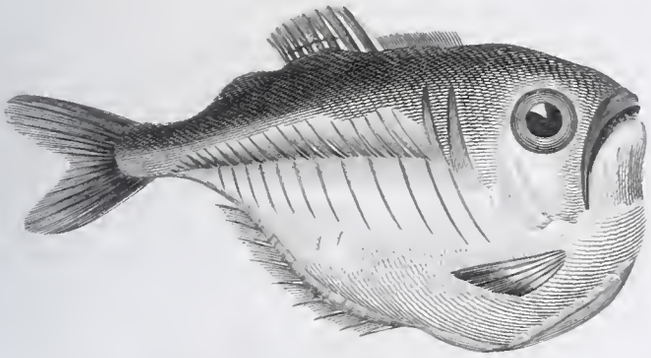

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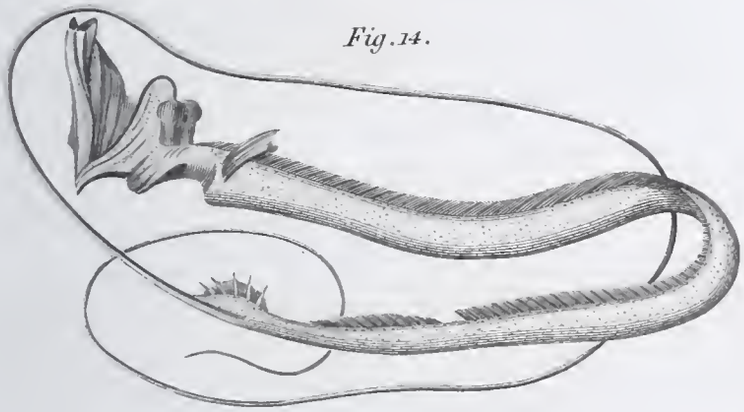

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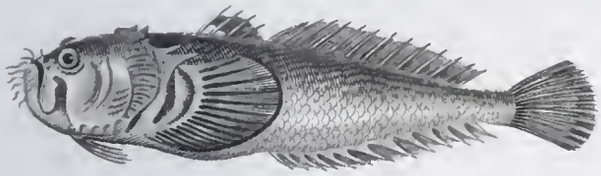

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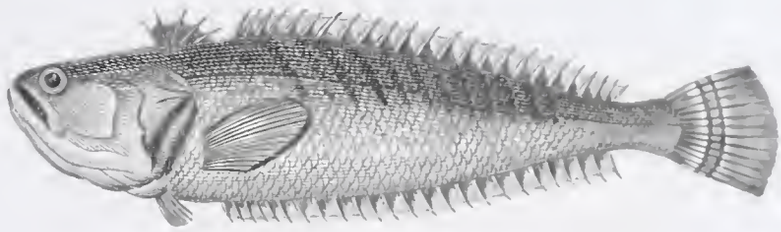

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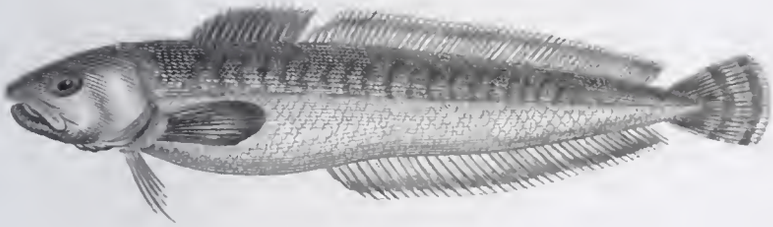

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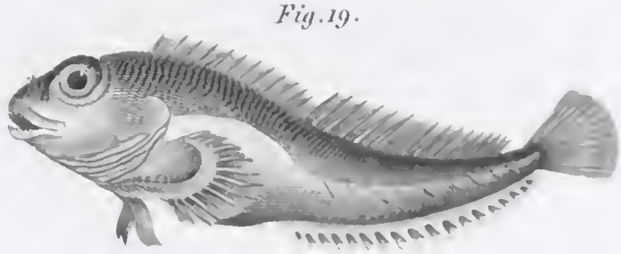

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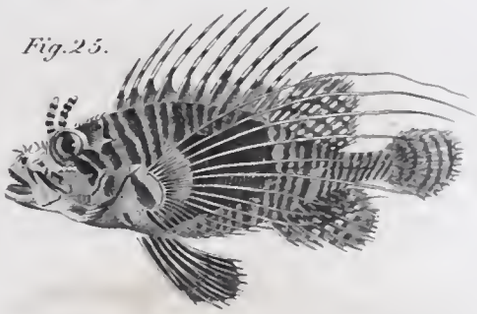

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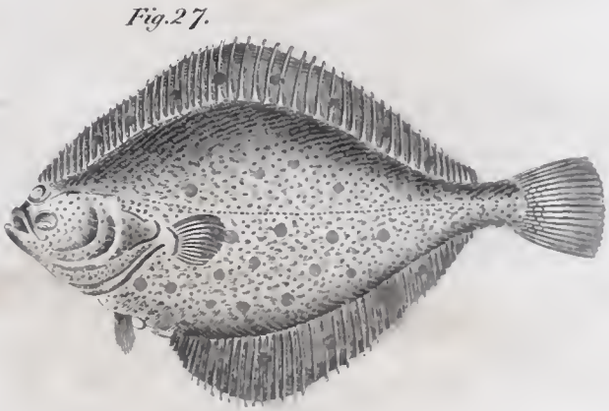

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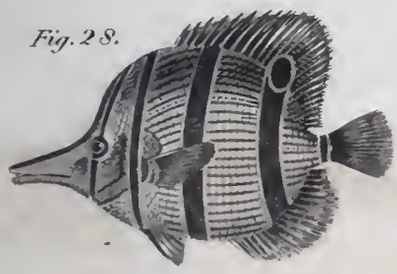

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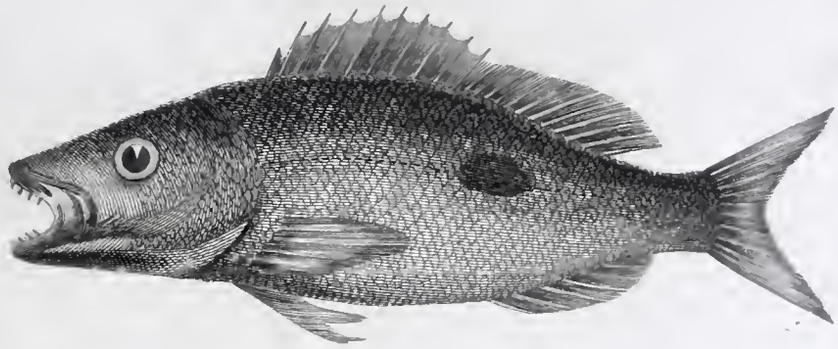

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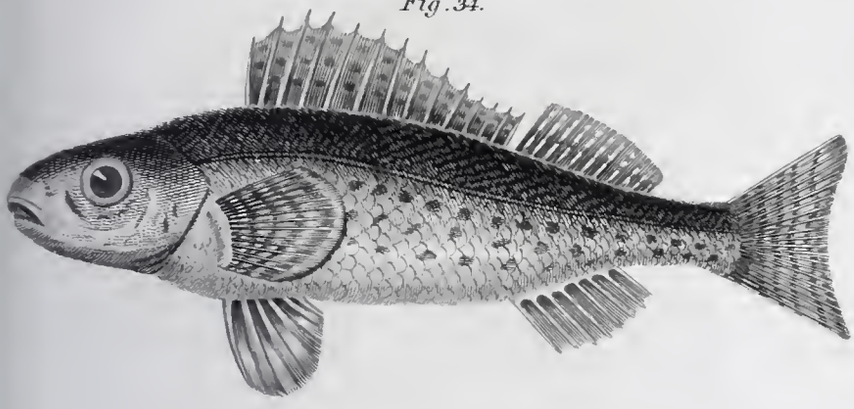

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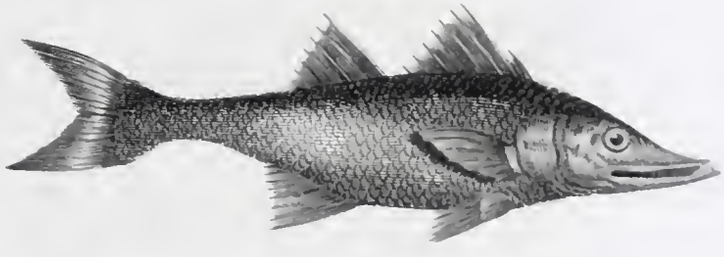

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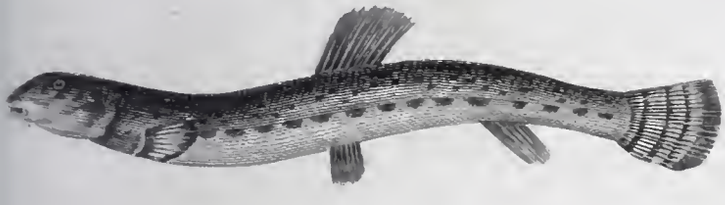

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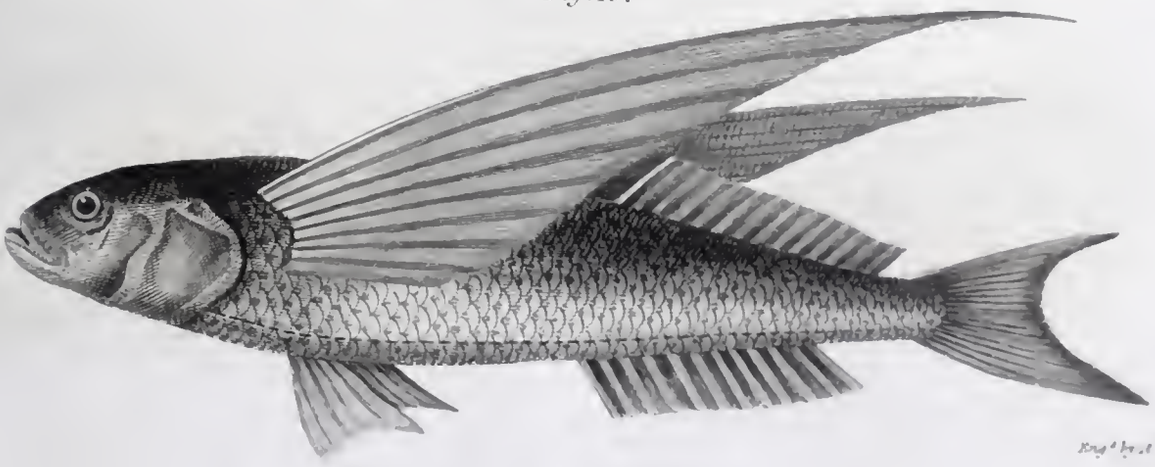

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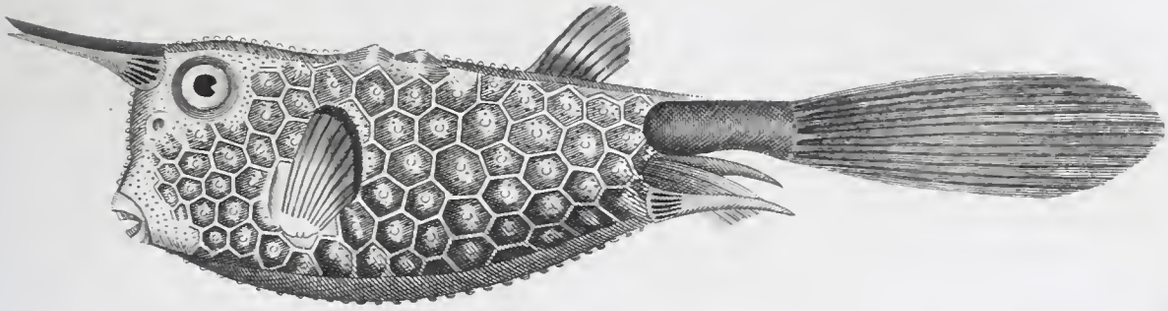

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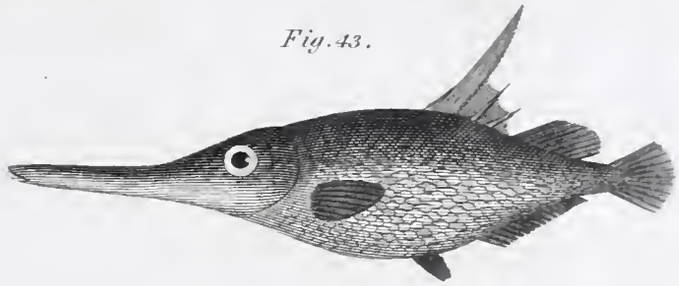

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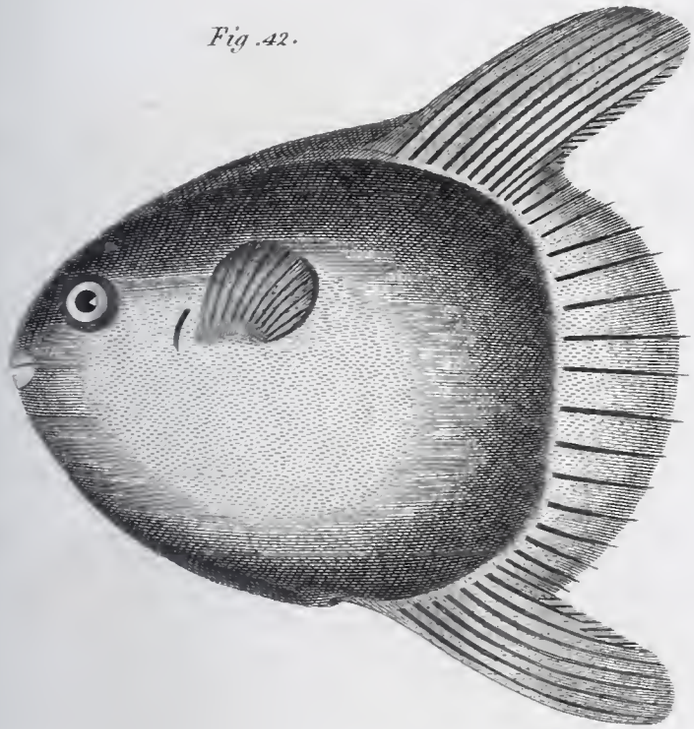

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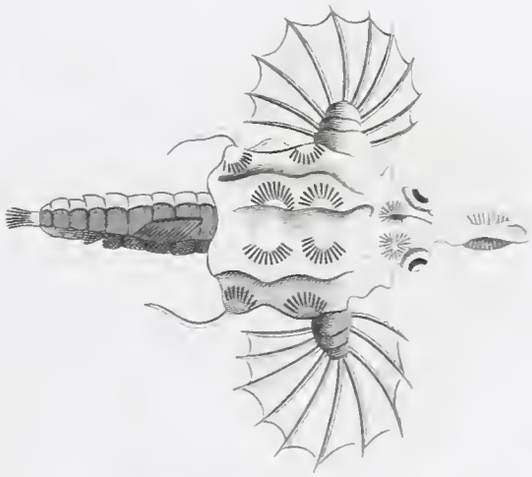

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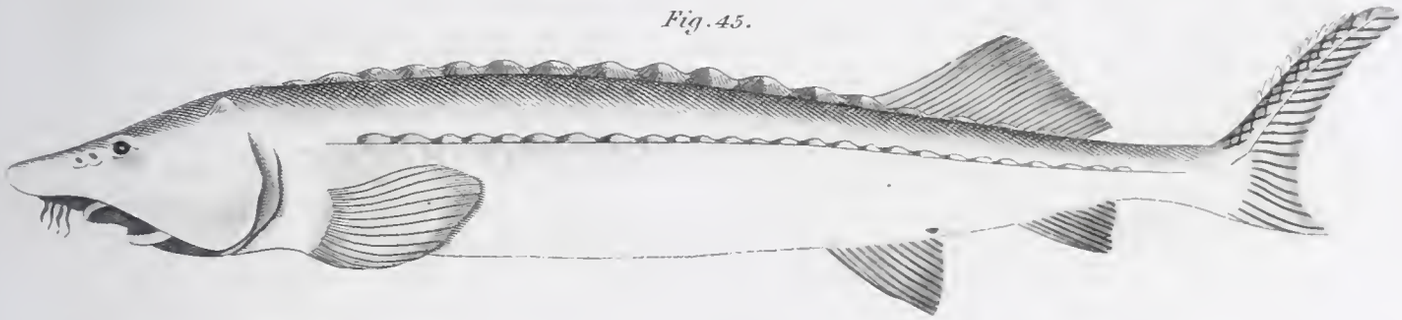

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I C H

Ichthyophagi, Ichthyperia.

ICHTHYOPHAGI, FISH-EATERS, a name given to a people, or rather to several different people, who lived wholly on fishes; the word is Greek, compounded of ιχθυς, *piscis*, "fish," and φαγειν, *edere*, "to eat."

The Ichthyophagi spoken of by Ptolemy are placed by Sanson in the provinces of Nanquin and Xantong. Agatharcides calls all the inhabitants between Carmania and Gedrosia by the name *Ichthyophagi*.

From the accounts given us of the Ichthyophagi by Herodotus, Strabo, Solinus, Plutarch, &c. it appears indeed that they had cattle, but that they made no use of them, excepting to feed their fish withal. They made their houses of large fish-bones, the ribs of whales serving them for their beams. The jaws of these animals served them for doors; and the mortars wherein they pounded their fish, and baked it at the sun, were nothing else but their vertebræ.

ICHTHYPERIA, an old term in *Natural History*, which is applied by Dr Hill to the bony palates and

I C O

mouths of fishes, usually met with either fossil, in single pieces, or in fragments. They are of the same substance with the bufonitæ; and are of very various figures, some broad and short, others longer and slender; some very gibbose, and others plainly arched. They are likewise of various sizes, from the tenth of an inch to two inches in length, and an inch in breadth. Ichthyperia Iconium.

ICKENILD-STREET, is that old Roman highway, denominated from the Icenians, which extended from Yarmouth in Norfolk, the east part of the kingdom of the Iceni, to Barley in Hertfordshire, giving name in the way to several villages, as Ickworth, Icklingham, and Ickleton in that kingdom. From Barley to Royston it divides the counties of Cambridge and Hertford. From Ickleford it runs by Tring, crosses Bucks and Oxfordshire, passes the Thames at Goring, and extends to the west part of England.

ICOLMKIL. See IONA.

ICONIUM, at present COGNI, formerly the capital city

Iconium, Iconoclastes.

city of Lycaonia in Asia Minor. St Paul coming to Iconium (Acts xiii. 51. xiv. 1. &c.) in the year of Christ 45, converted many Jews and Gentiles there. It is believed, that in his first journey to this city, he converted St Thecla, so celebrated in the writings of the ancient fathers. But some incredulous Jews excited the Gentiles to rise against Paul and Barnabas, so that they were upon the point of offering violence to them, which obliged St Paul and St Barnabas to fly for security to the neighbouring cities. St Paul undertook a second journey to Iconium in the year 51; but we know no particulars of his journey, which relate peculiarly to Iconium.

ICONOCLASTES, or ICONOCLASTÆ, breakers of images; a name which the church of Rome gives to all who reject the use of images in religious matters.—The word is Greek, formed from εικων, *imago*, and κλαειν, *rumpere*, "to break."

In this sense, not only the reformed, but some of the eastern churches, are called *Iconoclastes*, and esteemed by them heretics, as opposing the worsbip of the images of God and the saints, and breaking their figures and representations in churches.

The opposition to images began in Greece under the reign of Bardanes, who was created emperor of the Greeks a little after the commencement of the eighth century, when the worship of them became common. See IMAGE. But the tumults occasioned by it were quelled by a revolution, which, in 713, deprived Bardanes of the imperial throne. The dispute, however, broke ont with redoubled fury under Leo the Isaurian, who issued out an edict in the year 726, abrogating, as some say, the worship of images, and ordering all the images, except that of Christ's crucifixion, to he removed out of the churches; but according to others, this edict only prohibited the paying to them any kind of adoration or worship. This edict occasioned a civil war, which broke out in the islands of the Archipelago, and by the suggestions of the priests and monks, ravaged a part of Asia, and afterwards reached Italy. The civil commotions and insurrections in Italy were chiefly promoted by the Roman pontiffs, Gregory I. and II. Leo was excommunicated, and his subjects in the Italian provinces violated their allegiance, and rising in arms either massacred or banished all the emperor's deputies and officers. In consequence of these proceedings, Leo assembled a council at Constantinople in 730, which degraded Germanus, the bishop of that city, who was a patron of images; and he ordered all the images to be publicly hurnt, and inflicted a variety of severe punishments upon such as were attached to that idolatrous worship. Hence arose two factions; one of which adopted the adoration and worship of images, and on that account were called *iconoduli* or *iconolatræ;* and the other maintained that such a worship was unlawful, and that nothing was more worthy the zeal of Christians than to demolish and destroy those statues and pictures which were the occasions of this gross idolatry; and hence they were distinguished by the titles of *iconomachi*, (from εικων, *image*, and μαχω, *I contend*,) and *iconoclastæ*. The zeal of Gregory II. in favour of image worship, was not only imitated, but even surpassed by his successor Gregory III. in consequence of which the Italian provinces were torn from the Grecian empire,

Constantine, called *Copronymus*, from κοπρος, "stercus," and ονομα, "name," because he was said to have defiled the sacred font at his baptism, succeeded his father Leo in 741, and in 754 convened a council at Constantinople, regarded by the Greeks as the seventh œcumenical council, which solemnly condemned the worship and use of images. Those who, notwithstanding this decree of the council, raised commotions in the state, were severely punished; and new laws were enacted, to set bounds to the violence of monastic rage. Leo IV. who was declared emperor in 775, pursued the same measures, and had recourse to the coercive influence of penal laws, in order to extirpate idolatry out of the Christian church. Irene, the wife of Leo, poisoned her husband in 780; assumed the reins of empire during the minority of her son Constantine, and in 786 summoned a council at Nice in Bithynia, known by the name of the *second Nicene council*, which abrogated the laws and decrees against the new idolatry, restored the worship of images and of the cross, and denounced severe punishments against those who maintained that God was the only object of religious adoration. In this contest, the Britons, Germans, and Gauls, were of opinion, that images might be lawfully continued in churches, but they considered the worship of them as highly injurious and offensive to the Supreme Being. Charlemagne distinguished himself as a mediator in this controversy: he ordered four books concerning images to be composed, refuting the reasons urged by the Nicene bishops to justify the worship of images, which he sent to Adrian the Roman pontiff in 790, in order to engage him to withdraw his approbation of the decrees of the last council of Nice. Adrian wrote an answer; and in 794, a council of 300 bishops, assembled by Charlemagne at Francfort on the Maine, confirmed the opinion contained in the four books, and solemnly condemned the worship of images. In the Greek church, after the banishment of Irene, the controversy concerning images broke out anew, and was carried on by the contending parties, during the half of the ninth century, with various and uncertain success. The emperor Nicephorus appears upon the whole to have been an enemy to this idolatrous worship. His successor, Michael Curopalates, surnamed *Rhangabe*, patronized and encouraged it. But the scene changed on the accession of Leo the Armenian to the empire; who assembled a council at Constantinople in 814, that abolished the decrees of the Nicene council. His successor Michael, surnamed *Balbus*, disapproved the worship of images, and his son Theophilus treated them with great severity. However, the empress Theodora, after his death, and during the minority of her son, assembled a council at Constantinople in 842, which reinstated the decrees of the second Nicene council, and encouraged image worship by a law. The council held at the same place under Photius, in 879, and reckoned by the Greeks the eighth general council, confirmed and renewed the Nicene decrees. In commemoration of this council, a festival was instituted by the superstitious Greeks, called the *feast of orthodoxy*. The Latins were generally of opinion, that images might be suffered as the means of aiding the memory of the faithful, and of calling to their remembrance the pious exploits and virtuous actions of the persons whom they represented; but they detested all thoughts of paying them the least

Iconoclastes.

Iconoclastes ‖ Icosandria.

marks of religious homage or adoration. The council of Paris, assembled in 824 by Lonis the Meek, resolved to allow the use of images in the churches, but severely prohibited rendering them religious worship. Nevertheless, towards the conclusion of this century, the Gallican clergy began to pay a kind of religious homage to the images of saints, and their example was followed by the Germans and other nations. However, the Iconoclasts still had their adherents among the Latins; the most eminent of whom was Claudius bishop of Turin, who, in 823, ordered all images, and even the cross, to be cast out of the churches, and committed to the flames; and he wrote a treatise, in which he declared both against the use and worship of them. He condemned relicks, pilgrimages to the Holy Land, and all voyages to the tombs of saints; and to his writings and labours it was owing, that the city of Turin, and the adjacent country, was, for a long time after his death, much less infected with superstition than the other parts of Europe. The controversy concerning the sanctity of images was again revived by Leo bishop of Chalcedon, in the 11th century, on occasion of the emperor Alexius's converting the figures of silver that adorned the portals of the churches into money in order to supply the exigencies of the state. The bishop obstinately maintained that he had been guilty of sacrilege; and published a treatise, in which he affirmed, that in these images there resided an inherent sanctity, and that the adoration of Christians ought not to be confined to the persons represented by these images, but extended to the images themselves. The emperor assembled a council at Constantinople, which determined, that the images of Christ and of the saints were to be honoured only with a relative worship; and that invocation and worship were to be addressed to the saints only as the servants of Christ, and on account of their relation to him as their master. Leo, dissatisfied even with these absurd and superstitious decisions, was sent into banishment. In the western church, the worship of images was disapproved and opposed by several considerable parties, as the Petrobossians, Albigenses, Waldenses, &c. till at length this idolatrous practice was entirely abolished in many parts of the Christian world by the Reformation. See IMAGE.

ICONOGRAPHIA (derived from εικων, "image," and γραφω, "I describe), the description of images or ancient statues of marble and copper; also of busts and semi-busts, penates, paintings in fresco, mosaic works, and ancient pieces of miniature.

ICONOLATRÆ, or ICONOLATERS (from εικων and λατρευω, "I worship,") or ICONODULI (from εικων and δουλοω, "I serve;") those who worship images: A name which the Iconoclastes give to those of the Romish communion, on account of their adoring images, and of rendering to them the worship only due to God. See ICONOCLASTS and IMAGE.

ICOSAHEDRON, in *Geometry*, a regular solid, consisting of 20 triangular pyramids, whose vertices meet in the centre of a sphere supposed to circumscribe it; and therefore have their height and bases equal; wherefore the solidity of one of these pyramids multiplied by 20, the number of bases, gives the solid contents of the icosahedron.

ICOSANDRIA (from εικοσι, "twenty," and ανηρ, "a man or husband"); the name of the 12th class in Linnæus's sexual method, consisting of plants with hermaphrodite flowers, which are furnished with 20 or more stamina, that are inserted into the inner side of the calyx or petals. See BOTANY, p. 192. Icosandria ‖ Ides.

ICTINUS, a celebrated Greek architect who lived about 430 B. C. built several magnificent temples, and among others that of Minerva at Athens.

IDA, in *Ancient Geography*, a mountain situated in the heart of Crete where broadest; the highest of all in the island; round, and in compass 60 stadia (Strabo); the nursing place of Jupiter, and where his tomb was visited in Varro's time.—Another *Ida*, a mountain of Mysia, or rather a chain of mountains (Homer, Virgil), extending from Zeleia on the south of the territory of Cyzicus to Lectum the utmost promontory of Troas. The abundance of its waters became the source of many rivers, and particularly of the Simois, Scamander, Æsopus, Granicus, &c. It was covered with green wood, and the elevation of its top opened a fine extensive view of the Hellespont and the adjacent countries; from which reason it was frequented by the gods during the Trojan war, according to Homer. The top was called *Gargara* (Homer, Strabo); and celebrated by the poets for the judgment of Paris on the beauty of the three goddesses, Minerva, Juno, and Venus; to the last of whom he gave the preference.

IDALIUM, in *Ancient Geography*, a promontory on the east side of Cyprus. Now *Capo di Griego;* with a high rugged eminence rising over it, in the form of a table. It was sacred to Venus; and hence the epithet *Idalia* given her by the poets. The eminence was covered by a grove; and in the grove was a little town, in Pliny's time extinct. *Idalia*, according to Bochart, denotes the place or spot sacred to the goddess.

IDEA, the reflex perception of objects, after the original perception or impression has been felt by the mind. See METAPHYSICS, *passim;* and LOGIC, Part I.

IDENTITY, denotes that by which a thing is itself, and not any thing else; in which sense *identity* differs from *similitude*, as well as *diversity*. See METAPHYSICS.

IDES, in the ancient Roman kalendar, were eight days in each month; the first of which fell on the 15th of March, May, July, and October; and on the 13th day of the other months.—The origin of the word is contested. Some will have it formed from ιδειν, "to see;" by reason the full moon was commonly seen on the days of the ides; others from ειδος, "species, figure," on account of the image of the full moon then visible: others from *idulium* or *ovis idulis*, a name given by the Hetrurians to a victim offered on that day to Jupiter: others from the Hetrurian word *iduo*, i. e. *divido;* by reason the ides divided the moon into two nearly equal parts.

The ides came between the KALENDS and the NONES; and were reckoned backwards. Thus they called the 14th day of March, May, July, and October, and the 12th of the other months, the *pridie idus*, or the day before the ides; the next preceding day they called the *tertia idus;* and so on, reckoning always backwards till they came to the NONES. This method of reckoning time is still retained in the chancery of Rome,

Ides, Idiocy.

Rome, and in the kalendar of the Breviary.—The ides of May were consecrated to Mercury: the ides of March were ever esteemed unhappy, after Cæsar's murder on that day: the time after the ides of June was reckoned fortunate for those who entered into matrimony: the ides of August were consecrated to Diana, and were observed as a feast day by the slaves. On the ides of September, auguries were taken for appointing the magistrates, who formerly entered into their offices on the ides of May, afterwards on those of March.

IDIOCY, a defect of understanding. Both idiocy and lunacy excuse from the guilt of crimes; (see CRIME, *par. ult.*). For the rule of law as to lunatics, which may also be easily adapted to idiots, is, that *furiosus furore solum punitur*. In criminal cases, therefore, idiots and lunatics are not chargeable for their own acts, if committed when under these incapacities: no, not even for treason itself. Also, if a man in his sound memory commits a capital offence, and before arraignment for it he becomes mad, he ought not to be arraigned for it: because he is not able to plead to it with that advice and caution that he ought. And if, after he has pleaded, the prisoner becomes mad, he shall not be tried: for how can he make his defence? If, after he be tried and found guilty, he loses his senses before judgment, judgment shall not be pronounced; and if, after judgment, he becomes of nonsane memory, execution shall be stayed: for peradventure, says the humanity of the English law, had the prisoner been of sound memory, he might have alleged something in stay of judgment or execution. Indeed, in the bloody reign of Henry VIII. a statute was made, which enacted, that if a person, being *compos mentis*, should commit high treason, and after fall into madness, he might be tried in his absence, and should suffer death, as if he were of perfect memory. But this savage and inhuman law was repealed by the statute 1 & 2 Ph. & M. c. 10. For, as is observed by Sir Edward Coke, "the execution of an offender is for example, *ut pœna ad paucos, metus ad omnes perveniat:* but so it is not when a madman is executed; but should be a miserable spectacle, both against law, and of extreme inhumanity and cruelty, and can be no example to others." But if there be any doubt whether the party be *compos* or not, this shall be tried by a jury. And if he be so found, a total idiocy, or absolute insanity, excuses from the guilt, and of course from the punishment, of any criminal action committed under such deprivation of the senses; but if a lunatic hath lucid intervals of understanding, he shall answer for what he does in those intervals, as if he had no deficiency. Yet, in the case of absolute madmen, as they are not answerable for their actions, they should not be permitted the liberty of acting unless under proper controul; and, in particular, they ought not to be suffered to go loose, to the terror of the king's subjects. It was the doctrine of our ancient law, that persons deprived of their reason might be confined till they recovered their senses, without waiting for the forms of a commission or other special authority from the crown; and now, by the vagrant acts, a method is chalked out for imprisoning, chaining, and sending them to their proper homes.

Blackstone's Commentaries.

The matrimonial contract likewise cannot take place in a state of idiocy. It was formerly adjudged, that the issue of an idiot was legitimate, and his marriage valid. A strange determination! since consent is absolutely requisite to matrimony, and neither idiots nor lunatics are capable of consenting to any thing. And therefore the civil law judged much more sensibly, when it made such deprivations of reason a previous impediment, though not a cause of divorce if they happened after marriage. And modern resolutions have adhered to the sense of the civil law, by determining that the marriage of a lunatic, not being in a lucid interval, was absolutely void. But as it might be difficult to prove the exact state of the party's mind at the actual celebration of the nuptials, upon this account (concurring with some private family reasons*), the statute 15 Geo. II. c. 30. has provided, that the marriage of lunatics and persons under phrensies (if found lunatics under a commission, or committed to the care of trustees under any act of parliament) before they are declared of sound mind by the lord chancellor, or the majority of such trustees, shall be totally void.

Idiocy.

* See *Private acts*, 23 Geo. II. c. 6.

Idiots and persons of nonsane memory, as well as infants and persons under duress, are not totally disabled either to convey or purchase, but *sub modo* only. For their conveyances and purchases are voidable, but not actually void. The king, indeed, on behalf of an idiot, may avoid his grants or other acts. But it hath been said, that a *non compos* himself, though he be afterwards brought to a right mind, shall not be permitted to allege his own insanity in order to avoid such grant: for that no man shall be allowed to stultify himself, or plead his own disability. The progress of this notion is somewhat curious. In the time of Edward I. *non compos* was a sufficient plea to void a man's own bond: and there is a writ in the register for the alienor himself to recover lands alienated by him during his insanity; *dum fuit non compos mentis suæ, ut dicit*, &c. But under Edward III. a scruple began to arise, whether a man should be permitted to *blemish* himself, by pleading his own insanity; and, afterwards, a defendant in assize having pleaded a release by the plaintiff since the last continuance, to which the plaintiff replied (*ore tenus*, as the manner then was) that he was out of his mind when he gave it, the court adjourned the assize; doubting, whether as the plaintiff was sane both then and at the commencement of the suit, he should be permitted to plead an intermediate deprivation of reason; and the question was asked, how he came to remember to release, if out of his senses when he gave it? Under Henry VI. this way of reasoning (that a man should not be allowed to disable himself, by pleading his own incapacity, because he cannot know what he did under such a situation) was seriously adopted by the judges in argument; upon a question whether the heir was barred of his right of entry by the feoffment of his insane ancestor? And from these loose authorities, which Fitzherbert does not scruple to reject as being contrary to reason, the maxim that a man shall not stultify himself, hath been handed down as settled law: though later opinions, feeling the inconvenience of the rule, have in many points endeavoured to restrain it. And, clearly, the next heir or other person interested, may, after the death of the idiot or *non compos*, take advantage of his incapcity and avoid the

Idiocy || Idleness.

the grant. And so, too, if he purchases under this disability, and does not afterwards upon recovering his senses agree to the purchase, his heir may either wave or accept the estate at his option. In like manner, an infant may wave such purchase or conveyance, when he comes to full age; or, if he does not then actually agree to it, his heir may wave it after him. Persons, also, who purchase or convey under duress, may affirm or avoid such transaction, whenever the duress is ceased. For all these are under the protection of the law; which will not suffer them to be imposed upon through the imbecility of their present condition; so that their acts are only binding, in case they be afterwards agreed to when such imbecility ceases. Yet the guardians or committees of a lunatic, by the statute 11 Geo. III. c. 20. are empowered to renew in his right, under the directions of the court of chancery, any lease for lives or years, and apply the profits of such renewal for the benefit of such lunatic, his heirs, or executors. See LUNACY.

IDIOM, among grammarians, properly signifies the peculiar genius of each language, but is often used in a synonymous sense with dialect. The word is Greek, ἰδιωμα, "propriety;" formed of ἰδιος, "proper, own."

IDIOPATHY, in *Physic*, a disorder peculiar to a certain part of the body, and not arising from any preceding disease; in which sense it is opposed to sympathy. Thus, an epilepsy is idiopathic when it happens merely through some fault in the brain; and sympathetic when it is the consequence of some other disorder.

IDIOSYNCRASY, among physicians, denotes a peculiar temperament of body, whereby it is rendered more liable to certain disorders than persons of a different constitution usually are.

IDIOT, or IDEOT, in our laws, denotes a natural fool, or a fool from his birth. See IDIOCY.

The word is originally Greek, ἰδιωτης, which primarily imports a *private person*, or one who leads a private life, without any share or concern in the government of affairs.

A person who has understanding enough to measure a yard of cloth, number twenty rightly, and tell the days of the week, &c. is not an idiot in the eye of the law. But a man who is born deaf, dumb, and blind, is considered by the law in the same state as an idiot.

IDIOT is also used, by ancient writers, for a person ignorant or unlearned: answering to *illiteratus*, or *imperitus*. In this sense, Victor tells us, in his Chronicon, that in the consulship of Messala, the Holy Gospels, by command of the emperor Anastasius, were corrected and amended, as having been written by idiot evangelists: *Tanquam ab idiotis evangelistis composita.*

IDLENESS, a reluctancy in people to be employed in any kind of work.

Idleness in any person whatsoever is a high offence against the public economy. In China it is a maxim, that if there be a man who does not work, or a woman that is idle, in the empire, somebody must suffer cold or hunger; the produce of the lands not being more than sufficient, with culture, to maintain the inhabitants; and therefore, though the idle person may shift off the want from himself, yet it must in the end fall somewhere. The court also of Areopagus at Athens punished idleness, and exerted a right of examining every citizen in what manner he spent his time; the intention of which was, that the Athenians, knowing they were to give an account of their occupations, should follow only such as were laudable, and that there might be no room left for such as lived by unlawful arts. The civil law expelled all sturdy vagrants from the city; and, in our own law, all idle persons or vagabonds, whom our ancient statutes describe to be "such as wake on the night and sleep on the day, and haunt customable taverns and ale-houses, and routs about; and no man wot from whence they come, ne whether they go;" or such as are more particularly described by statute 17 Geo. II. c. 5. and divided into three classes, *idle* and *disorderly* persons, *rogues* and *vagabonds*, and *incorrigible rogues*;—all these are offenders against the good order, and blemishes in the government, of any kingdom. They are therefore all punished, by the statute last mentioned; that is to say, idle and disorderly persons with one month's imprisonment in the house of correction; rogues and vagabonds with whipping, and imprisonment not exceeding six months; and incorrigible rogues with the like discipline, and confinement not exceeding two years; the breach and escape from which confinement in one of an inferior class, ranks him among incorrigible rogues; and in a rogue (before incorrigible) makes him a felon, and liable to be transported for seven years. Persons harbouring vagrants are liable to a fine of forty shillings, and to pay all expences brought upon the parish thereby: in the same manner as, by our ancient laws, whoever harboured any stranger for more than two nights, was answerable to the public for any offence that such his inmate might commit. *Blackst. Commentaries.*

Idleness || Idolatry.

IDOL, in pagan theology, an image, or fancied representation of any of the heathen gods.—This image, of whatever materials it consisted, was, by certain ceremonies, called *consecration*, converted into a god. While under the artificer's hand, it was only a mere statue. Three things were necessary to turn it into a god; proper ornaments, consecration, and oration. The ornaments were various, and wholly designed to blind the eyes of the ignorant and stupid multitude, who are chiefly taken with show and pageantry. Then followed the consecration and oration, which were performed with great solemnity among the Romans. See IMAGE.

IDOLATRY, or the worship of idols, may be distinguished into two sorts. By the first, men adore the works of God, the sun, the moon, the stars, angels, dæmons, men, and animals: by the second, men worship the work of their own hands, as statues, pictures, and the like: and to these may be added a third, that by which men have worshipped the true God under sensible figures and representations. This indeed may have been the case with respect to each of the above kinds of idolatry; and thus the Israelites adored God under the figure of a calf.

The stars were the first objects of idolatrous worship, on account of their beauty, their influence on the productions of the earth, and the regularity of their motions, particularly the sun and moon, which are considered as the most glorious and resplendent images of the Deity: afterwards, as their sentiments became

more

Idolatry, Idomeneus.

more corrupted, they began to form images, and to entertain the opinion, that by virtue of consecration, the gods were called down to inhabit or dwell in their statues. Hence Arnobius takes occasion to rally the Pagans for guarding so carefully the statues of their gods, who, if they were really present in their images, might save their worshippers the trouble of securing them from thieves and robbers.

As to the adoration which the ancient Pagans paid to the statues of their gods, it is certain, that the wiser and more sensible heathens considered them only as simple representations or figures designed to recal to their minds the memory of their gods. This was the opinion of Varro and Seneca: and the same sentiment is clearly laid down in Plato, who maintains, that images are inanimate, and that all the honour paid to them has respect to the gods whom they represent. But as to the vulgar, they were stupid enough to believe the statues themselves to be gods, and to pay divine worship to stocks and stones.

Soon after the flood, idolatry seems to have been the prevailing religion of all the world: for wherever we cast our eyes at the time of Abraham, we scarcely see any thing but false worship and idolatry, And it appears from Scripture, that Abraham's forefathers, and even Abraham himself, were for a time idolaters.

The Hebrews were indeed expressly forbidden to make any representation of God: they were not so much as to look upon an idol; and from the time of the Maccabees to the destruction of Jerusalem, the Jews extended this precept to the making the figure of any man: by the law of Moses, they were obliged to destroy all the images they found, and were forbidden to apply any of the gold or silver to their own use, that no one might receive the least profit from any thing belonging to an idol. Of this the Jews, after they had smarted for their idolatry, were so sensible, that they thought it unlawful to use any vessel that had been employed in sacrificing to a false god, to warm themselves with the wood of a grove after it was cut down, or to shelter themselves under its shade.

But the preaching of the Christian religion, whereever it prevailed, entirely rooted out idolatry; as did also that of Mahomet, which is built on the worship of one god. It must not, however, be forgotten, that the Protestant Christians charge those of the church of Rome with paying an idolatrous kind of worship to the pictures or images of saints and martyrs: before these they burn lamps and wax candles; before these, they burn incense, and, kneeling, offer up their vows and petitions; they, like the Pagans, believe that the saint to whom the image is dedicated, presides in a particular manner about its shrine, and works miracles by the intervention of its image; and that if the image was destroyed or taken away, the saint would no longer perform any miracle in that place.

IDOMENEUS, in fabulous history, succeeded his father Deucalion on the throne of Crete. He accompanied the Greeks to the Trojan war with a fleet of 90 ships. During this celebrated war he rendered himself famous by his valour, and slaughtered many of the enemy. At his return from the Trojan war, he made a vow to Neptune in a dangerous tempest, that if he escaped from the fury of the seas and storms, he would offer to the god whatever living creature first presented itself to his eye on the Cretan shore. This was no other than his son, who came to congratulate his father upon his safe return. Idomeneus performed his promise to the god; and the inhumanity and rashness of this sacrifice rendered him so odious in the eyes of his subjects, that he left Crete, and migrated in quest of a settlement. He came to Italy, and founded a city on the coast of Calabria, which he called *Salentum*. He died in extreme old age, after he had had the satisfaction of seeing his new kingdom flourish and his subjects happy. According to the Greek scholiast of Lycophron, v. 1217, Idomeneus, during his absence in the Trojan war, intrusted the management of his kingdom to Leucos, to whom he promised his daughter Clisithere in marriage at his return. Leucos at first governed with moderation, but he was persuaded by Nauplius king of Eubœa to put to death Meda the wife of his master, with her daughter Clisithere, and to seize the kingdom. After these violent measures he strengthened himself on the throne of Crete, and Idomeneus at his return found it impossible to expel the usurper.

Idomeneus ‖ Jeddo.

IDUMÆA. See EDOM.

JEALOUSY, in *Ethics*, is that peculiar uneasiness which arises from the fear that some rival may rob us of the affection of one whom we greatly love, or suspicion that he has already done it. The first sort of jealousy is inseparable from love, before it is in possession of its object; the latter is often unjust, generally mischievous, always troublesome.

Waters of JEALOUSY. See WATERS.

IDYLLION, in ancient poetry, is only a diminutive of the word EIDOS, and properly signifies any poem of moderate extent, without considering the subject. But as the collection of Theocritus's poems were called *Idyllia*, and the pastoral pieces being by far the best in that collection, the term *Idyllion* seems to be now appropriated to pastoral pieces.

JEARS, or GEERS, in the sea langnage, an assemblage of tackles, by which the lower yards of a ship are hoisted along the mast to their usual station, or lowered from thence as occasion requires: the former of which operations is called *swaying*, and the latter *striking*.

JEBUSÆI, one of the seven ancient peoples of Canaan, descendants of Jebusi, Canaan's son; so warlike and brave, as to have stood their ground, especially in Jebus, afterwards called *Jerusalem*, down to the time of David, Judges i. 21. 1 Sam. v. 6.

JEDBURGH, a parliament town of Scotland, capital of Tiviotdale or Roxburghshire, is situated nearly in the middle of the county, on the banks of the river *Jed*, whence it derives its name, It is well built and populous, and has a good market for corn and cattle. On the west side of the river, near its junction with the Teviot, stand the beautiful ruins of an abbey founded by David I. a part of which ancient pile serves for a parish church.—Jedburgh is the seat of the sheriff's court and of a presbytery. The population of this town in 1811 was 4454.

JEDDO, the capital town or city of the islands of Japan, where the emperor resides. It is open on all sides, having neither walls nor ramparts; and the houses

Jeddo ‖ Jeffreys.

houses are built with earth, and boarded on the outside to prevent the rain from destroying the walls. In every street there is an iron gate, which is shut up in the night; and a kind of customhouse or magazine, to put merchandise in. It is a large place, and has been said to contain a million of inhabitants, but this is undoubtedly an exaggeration. A fire happened in 1658, which, in the space of 48 hours, burnt down many thousand houses, and in which a vast number of inhabitants perished. The emperor's palace and all the rest were reduced to ashes; but they are all rebuilt again. The royal palace is in the middle of the town; and is defended with walls, ditches, towers, and bastions. Where the emperor resides, there are three towers nine stories high, each covered with plates of gold; and the hall of audience is said to be supported by pillars of massy gold. Near the palace are several others, where the relations of the emperor live. The empress has a palace of her own, and there are 20 small ones for the concubines. Besides, all the vassal kings have each a palace in the city, with a handsome garden, and stables. The houses of the common sort are nothing but a ground floor, and the rooms are parted by folding skreens; so that they can make the rooms larger or smaller at pleasure. It is seated in an agreeable plain, at the bottom of a fine bay; and the river which crosses it, is divided into several canals. E. Long. 139. 40. N. Lat. 35. 45.

JEFFERSONIA, in *Botany*, a genus of plants belonging to the class pentandria, and order *monogynia*. The calyx is composed of five short oval imbricated leaves; the corolla is monophyllous and funnel-shaped; the margin hypocrateriform; the stigma is quadrifid. One species only has been discovered, *sempervirens*, which is a shrub with round, polished, shining stems, which climb on bushes and small trees. This shrub is very abundant in the woods of Georgia in North America, where it was discovered by Dr Brickel, and it is covered with blossoms for many months of the year.

JEFFERY. See GEOFFREY.

JEFFREYS, SIR GEORGE, Baron Wem, commonly called *Judge Jeffreys*, ws the sixth son of John Jeffreys, Esq. of Acton in Denhighshire; and was educated at Westmiuster school, whence he removed to the Inner Temple, where he applied himself to the study of the law. Alderman Jeffreys, who was probably related to him, introduced him among the citizens of London, and he being a merry bottle companion, soon came into great business, and was chosen their recorder. He was afterwards chosen solicitor to the duke of York; and in 1680 was knighted, and made chief-justice of Chester. At length, resigning the recordership, he obtained the post of chief-justice of the king's bench, and, soon after the accession of James II. the great seal. During the reign of King Charles II. he showed himself a bitter enemy to those dissenting ministers who, in that time of persecution, were tried by him: he was one of the greatest advisers and promoters of all the oppressions and arbitrary measures carried on in the reign of James II.; and his sanguinary and inhuman proceedings against Monmouth's unhappy adherents in the west will ever render his name infamous. Whenever the prisoner was of a different party, or he could please the court by condemning him, instead of appearing according to the duty of his office, as his counsel, he would scarce allow him to speak for himself; but would load him with the grossest and most vulgar abuses, browbeat, insult, and turn to ridicule the witnesses that spoke in his behalf; and even threaten the jury with fines and imprisonment, if they made the least hesitation about bringing in the prisoner guilty. Yet it is said, that when he was in temper, and matters perfectly indifferent came before him, no one became a seat of justice better. Nay, it even appears, that when he was under no state influence, he was sometimes inclined to protect the natural and civil rights of mankind, of which the following instance has been given:—The mayor and aldermen of Bristol had been used to transport convicted criminals to the American plantations, and sell them by way of trade. This turning to good account, when any pilferers or petty rogues were brought before them, they threatened them with hanging; and then some officers who attended, earnestly persuaded the ignorant intimidated creatures to beg for transportation, as the only way to save them; and in general their advice was followed. Then, without more form, each alderman in course took one, and sold him for his own benefit; and sometimes warm disputes arose between them about the next turn. This infamous trade, which had been carried on many years, coming to the knowledge of the lord chief justice, he made the mayor descend from the beuch and stand at the bar, in his scarlet and fur, with his guilty brethren the aldermen, and plead as common criminals. He then obliged them to give securities to answer informations; but the proceedings were stopped by the revolution.—However, the brutality Jeffreys commonly showed on the bench, where his voice and visage were equally terrible, at length exposed him to a severe mortification. A scrivener of Wapping have a cause before him, one of the opponent's counsel said he was a strange fellow, and sometimes went to church, and sometimes to conventicles; and it was thought he was a trimmer. At this the chancellor fired: "A trimmer? (said he); I have heard much of that monster, but never saw one. Come forth Mr Trimmer, and let me see your shape." He then treated the poor fellow so roughly, that, on his leaving the hall, he declared he would not undergo the terrors of that man's face again to save his life, and he should certainly retain the frightful impressions of it as long as he lived. Soon after, the prince of Orange coming, the lord chancellor, dreading the public resentment, disguised himself in a seaman's dress, in order to leave the kingdom; and was drinking in a cellar, when this scrivener coming into the cellar, and seeing again the face which had filled him with such horror, started; on which Jeffreys, fearing he was known, feigned a cough, and turned to the wall with his pot of beer in his hand. But Mr Trimmer going out, gave notice that he was there; and the mob rushing in, seized him, and carried him before the lord mayor, who sent him with a strong guard to the lords of the council, by whom he was committed to the Tower, where he died in 1689.—It is remarkable, that the late countess of Pomfret met with very rude insults from the populace on the western road, only because she was granddaughter to the inhuman Jeffreys.

Jeffreys.

JEHOVAH,

JEHOVAH, one of the Scripture names of God, signifying the Being who is self-existent and gives existence to others.

So great a veneration had the Jews for this name, that they left off the custom of pronouncing it, whereby its true pronunciation was forgotten. They call it *tetragrammaton*, or, "the name with four letters;" and believe, that whoever knows the true pronunciation of it cannot fail to be heard by God.

JEJUNE STYLE. See STYLE.

JEJUNUM, the second of the small guts; thus called from the Latin *jejunus*, "hungry;" because always fuund empty. See ANATOMY, N° 93.

JELLALÆAN, or GELALÆAN *Calendar*, *Epocha*, *and Year*. See CALENDAR, EPOCHA, and YEAR.

JELLY, a form of food, or medicine, prepared from the juices of ripe fruits, boiled to a proper consistence with sugar; or the strong decoctions of the horns, bones, or extremities of animals, boiled to such a height as to be stiff and firm when cold, without the addition of any sugar.—The jellies of fruits are cooling, saponaceous, and acescent, and therefore are good as medicines in all disorders of the primæ viæ, arising from alkalescent juices, especially when not given alone, but diluted with water. On the contrary, the jellies made from animal substances are all alkalescent, and are therefore good in all cases in which an acidity of the humours prevails: the alkalescent quality of these is, however, in a great measure taken off, by adding lemon juice and sugar to them. There were formerly a sort of jellies much in use, called *compound jellies;* these had the restorative medicinal drugs added to them, but they are now scarce ever heard of.

JELLY-Oat, a preparation of common oats, recommended by many of the German physicians in all hectic disorders, to be taken with broth of snails or cray fish.—It is made by boiling a large quantity of oats, with the husk taken off, with some hartshorn shavings, and currants, together with a leg of veal cut to pieces, and with the bones all broken; these are to be set over the fire with a large quantity of water, till the whole is reduced to a sort of jelly; which when strained and cold is firm and hard. A few spoonfuls of this are to be taken every morning, diluted with a bason of either of the abuve-mentiuned broths, or any other warm liquor.

JEMPTERLAND, a province of Sweden, bounded on the north by Angermania, on the east by Medalpadia, on the south by Helsingia, and on the west by Norway. It is full of mountains; which afford ores of copper and iron, the latter of which is manufactured, and forms part of the trade with the Norwegians.

JENA, a strong town of Germany, in the circle of Upper Saxony, and in Saxe Weimar, with an university. It is seated on the river Sala, in E. Long. 11. 30. N. Lat. 50. 54.

JENCAPORE, a town of Asia, in the peninsula of Indostan, capital of a territory of the same name. It is seated on the river Chaul, in E. Long. 76. 25. N. Lat. 30. 30.

JENCOPING, a town of Sweden, in the province of Smaland, seated on the south side of the lake Werter, with a strong citadel. The houses are all built with wood. E. Long. 14. 20. N. Lat. 57. 22.

JENISA, a river of the Russian empire that runs from north to south through Siberia, and falls into the Frozen ocean.

JENISKOI, a town of the Russian empire, in Siberia, seated on the river Jenisa. It is large, populous, and pretty strong; and there are villages for several miles round it. It is subject to the Tungusians, who are Pagans, and live chiefly on the above river. They pay a tribute to the emperor for every bow, reckoning a man and a woman for one. The climate is extremely cold; and no other fruits grow there but black and red currants, strawberries, and gooseberries. Corn, butchers meat, and wild fowls, are very cheap. E. Long. 92. 35. N. Lat. 57. 46.

JENKINS, HENRY. See LONGEVITY.

JENKINS, *Sir Leoline*, a learned civilian and able statesman of the 17th century, born in Glamorganshire about the year 1623. Being rendered obnoxious to the parliament during the civil war by adhering to the king's cause, he consulted his safety by flight; but returning on the Restoration, he was admitted an advocate in the court of arches, and succeeded Dr Exton as judge. When the queen mother Henrietta died in 1669 at Paris, her whole estate, real and personal, was claimed by her nephew Louis XIV.: upon which Dr Jenkins's opinion being called for and approved, he went to Paris, with three others joined with him in a commission, and recovered her effects; for which he received the honour of knighthood. He officiated as one of the mediators at the treaty of Nimeguen, in which tedious negotiation he was engaged about four years and a half; and was afterwards made a privy counsellor and secretary of state. He died in 1685; and as he never married, bequeathed his whole estate to charitable uses: he was so great a benefactor to Jesus College, Oxford, that he is generally looked on as the second founder. All his letters and papers were collected and printed in 1724, in two vols. folio.

JENNY WREN, a name given by writers on song birds to the wren. See WREN, ORNITHOLOGY *Index*.

JENTACULUM was, among the Romans, a morning refreshment like our breakfast. It was exceedingly simple, consisting, for the most part, of bread alone; labouring people indeed had something more substantial to enable them to support the fatigues of their employment. What has been here said may be observed of the Jews and Christians also. The Greeks distinguished this morning meal by the several names of ἀριστον, ακρατισμος, or ακρατισμα, though ἀριστον is generally applied to dinner. See EATING and DINNER.

JENYNS, SOAME, a distinguished English writer, was born in Great Ormond-street, London, in the year 1703-4. Sir Roger Jenyns, his father, was descended from the family of the Jenyns of Churchill in Somersetshire. The country residence of Sir Roger was at Ely, in the isle of the same name, where he turned his attention to such kinds of business as rendered him most beneficial to his neighbours, for which amiable deportment in particular the honour of knighthood was conferred upon him by William III. Our author's mother, a lady of rank, learning and piety, superintended his education till it was necessary to place him under a tutor, for which purpose a Mr Hill was taken into the family, by whom he was instructed in the first rudiments of language, with such other branches of knowledge as were suited to his years. At this time Mr

Jenyns. Hill was called to a situation more advantageous, and a Mr White succeeded him in the office of tutor to young Jenyns, a man eminent for his learning, taste, and ingenuity, by whom he was qualified for attending the university.

He was admitted into St John's College, Cambridge, in the year 1722, under Dr Edmondson, who was at that time one of the leading tutors of the college. Here his diligence and regular deportment did him the greatest honour, and the strict discipline observed in the college was perfectly agreeable to his natural inclinations. After quitting the college, his winter residence was in London, and he lived in the country during the summer season, being chiefly employed in the prosecution of such studies as were of a literary nature. His first publication, a poetical essay on the art of dancing, appeared without his name in 1727; but he was very soon discovered, and it was considered as a presage of his future eminence.

Soon after the death of his father, he was chosen in 1742 one of the members of parliament for the county of Cambridge, and from this period he retained his seat in the house of commons till the year 1780. The high opinion entertained by his constituents of his parliamentary conduct, may be learned from the unanimity of their choice; for he never but once experienced any opposition. He was chosen one of the commissioners of the board of trade and plantations in 1755, which office he retained till an alteration was made in the constitution of it by authority of parliament. He was married, first to the only daughter of Colonel Soame, of Dereham in Norfolk, who died without issue, and afterwards to the daughter of Henry Gray, Esq. of Hackney, who survived him. He died himself of a fever, after a few days illness, on the 18th of December, 1787, leaving no issue.

His temper was mild, sweet, and gentle, which he manifested indiscriminately to all. It was his earnest wish never to give offence to any; yet he made such liberal allowances for diversities of temper, that he was very rarely offended with others. He was punctual in the discharge of the duties of religion both in public and private, professing to be better pleased with the government and discipline of the church of England than of any other in Christendom, which, however, he considered as capable of important alterations and amendments, if it were previously and deliberately determined what these alterations should be. He possessed an uncommon vein of the most lively and genuine wit, which he never made use of to wound the feelings of others, but was rather very much offended with those who did, being convinced that distinguished endowments of the mind are as much intended to promote the felicity of others, as of those who possess them.

No man was ever a more genuine philanthropist, as he felt most sensibly for the miseries of others, and used every mean in his power to render them as happy as possible. His indigent neighbours in the country he viewed as a part of his family, in which light he considered them as entitled to his care and protection. As an author, Soame Jenyns certainly deserves a place among those who have excelled, whether we view him as a poet, or a writer of prose, in which latter capacity he ranks with the purest and most correct writers of the English language. He reasons with closeness and precision, and comes to the conclusion, he means to establish by a regular chain of argument. His first publication, on account of which he was attacked, was his Free Inquiry into the Nature and Origin of Evil; but in a preface to the second edition he fully vindicated it against all the calumny, slander, and misrepresentation which had been thrown out against it, with that temper and moderation which distinguished him so eminently upon all occasions. His view of the Internal Evidences of the Christian Religion was published without his name in the year 1776, which gave delight and satisfaction to many eminent judges, and made converts of numbers who had been infidels before. Jenyns & Jephthah.

JEOFAILE, (compounded of three French words, *J'ay faille*, "I have failed"), a term in law, used for an oversight in pleading or other proceeding at law.

The showing of these defects or oversights was formerly often practised by the counsel; and when the jury came into court in order to try the issue, they said, This inquest you ought not to take; and after verdict they would say to the court, To judgment you ought not to go. But several statutes have been made to avoid the delays occasioned by such suggestions; and a judgment is not to be stayed after verdict for mistaking the Christian or surname of either of the parties, or in a sum of money, or in the day, month, year, &c. where the same are rightly named in any preceding record.

JEPHTHAH, judge of Israel, and successor to Jair in the government of the people, was a native of Mizpeh, and the son of one Gilead by a harlot. This Gilead having married a lawful wife, and had children by her, these children drove Jephthah from his father's house, saying that he should not be heir with them. Jepthah retired into the land of Tob, and there he became captain of a band of thieves and such other people as he had picked up together. At that time, the Israelites beyond Jordan, seeing themselves pressed by the Ammonites, came to desire assistance from Jephthah; and that he would take upon him the command of them. Jephthah at first reproached them with the injustice which they had done him, or at least which they had not prevented, when he was forced from his father's house. But as these people were very earnest in their request, he told them, that he would succour them, provided that at the end of the war they would acknowledge him for their prince. This they consented to, and promised with an oath.

Jephthah, in the year of the world 2817, having been acknowledged prince of the Israelites in an assembly of the people, was filled with the spirit of God, and began to get his troops together; to that end, he went over all the land which the children of Israel possessed beyond Jordan. At the same time he made a vow to the Lord, that if he were successful against the Ammonites, he would offer up for a burnt-offering whatever should first come out of his house to meet him. The battle being fought, Jephthah remained conqueror, and ravaged all the land of Ammon. But as he returned to his house, his only daughter came out to meet him with timbrels and with dances: whereupon Jephthah tore his clothes, and said, "Alas, my daughter, thou hast brought me very low, for I have made a vow unto the Lord, and cannot fail in the performance of it." His daughter answered, "My father,

Jephthah ‖ Jeremiah.

ther, if thou hast made a vow unto the Lord, do with me as thou hast promised; grant me only the favour that I may be at liberty to go up to the mountains, and there for two months bewail my virginity with my companions." Jephthah granted her this liberty; and at the end of two months, he offered up his daughter, who died a virgin, a burnt-offering, agreeable to his vow, according to the opinion of most commentators. In the mean time, the Ephraimites, jealous of the victory obtained by Jephthah over the Ammonites, passed the river Jordan in a tumultuous manner, came and complained to Jephthah that he had not invited them to this war, and threatened to set fire to his house. Jephthah answered them, that he had sent to desire their assistance; but observing that they did not come, he put his life in his hands and hazarded a battle. The Ephraimites not being satisfied with these reasons, Jephthah assembled the people of Gilead, gave them battle, and defeated them; so that there were two and forty thousand men of the tribe of Ephraim killed that day. We know nothing more in particular concerning the life of Jephthah, only that he judged Israel six years, and was buried in a city of Gilead.

St Paul (Heb. xi. 32.) places Jephthah among the saints of the Old Testament, the merit of whose faith distinguished them. But it must be observed, that there is something so extraordinary in Jephthah's vow, that notwithstanding the Scripture speaks of it in very plain and clear terms, yet such difficulties arise concerning it as perplex commentators. Some maintain, that this daughter of Jephthah was not sacrificed, as that would have been a violation of the law of Moses; and especially, when by the same law he might have redeemed his daughter for ten shekels of silver: therefore they contend, that it was something else Jephthah did to his daughter, such as devoting her to a state of celibacy, or dedicating her to the service of God. On the other hand, those who maintain the affirmative, or that Jephthah's daughter was actually sacrificed, urge, that the times wherein Jepthhah lived were sadly addicted to idolatry; also the manner wherein he lived before he was called to the assistance of his country; but above all, the clear, evident, and express meaning of the text. They observe, that vows of perpetual virginity are institutions of a modern date; and had there been no more in it, there would have been little occasion for rending his clothes, and bemoaning himself as he did; besides the bitter lamentations made by herself, and by all the daughters of Israel in succeeding times. But if she was sacrificed, we may safely and confidently aver with Josephus, who says that she was, that this sacrifice was neither lawful nor acceptable to God; but, on the contrary, an abominable crime, that might, notwithstanding, have proceeded from a mistaken principle of religion.

JERBOA, a species of quadruped belonging to the genus *dipus*, and resembling, in some of its characters, the mouse tribe. See DIPUS, MAMMALIA *Index*.

JEREMIAH, (*the Prophecy of*), a canonical book of the Old Testament. This divine writer was of the race of the priests, the son of Hilkiah of Anathoth, of the tribe of Benjamin. He was called to the prophetic office when very young, about the 13th year of Josiah, and continued in the discharge of it about 40 years. He was not carried captive to Babylon with the other Jews, but remained in Judea to lament the desolation of his country. He was afterwards a prisoner in Egypt with his disciple Baruch, where it is supposed he died in a very advanced age. Some of the Christian fathers tell us he was stoned to death by the Jews, for preaching against their idolatry; and some say he was put to death by Pharaoh Hophrah, because of his prophecy against him. Part of the prophecy of Jeremiah relates to the time after the captivity of Israel, and before that of Judah, from the first chapter to the 44th; and part of it was in the time of the latter captivity, from the 44th chapter to the end. The prophet lays open the sins of Judah with great freedom and boldness, and reminds them of the severe judgments which had befallen the ten tribes for the same offences. He passionately laments their misfortune, and recommends a speedy reformation to them. Afterwards he predicts the grievous calamities that were approaching, particularly the 70 years captivity in Chaldea. He likewise foretels their deliverance and happy return, and the recompense which Babylon, Moab, and other enemies of the Jews, should meet with in due time. There are likewise several intimations in this prophecy concerning the kingdom of the Messiah; also several remarkable visions, and types, and historical passages relating to those times. The 52d chapter does not belong to the prophecy of Jeremiah, but probably was added by Ezra, and contains a narrative of the taking of Jerusalem, and of what happened during the captivity of the Jews, to the death of Jechonias. St Jerome has observed upon this prophet, that his style is more easy than that of Isaiah and Hosea; that he retains something of the rusticity of the village where he was born; but that he is very learned and majestic, and equal to those two prophets in the sense of his prophecy.

Jeremiah, Jericho.

JERICHO, or HIERICHUS, in *Ancient Geography*, a city of Judea; situated between Jordan and Jerusalem, at the distance of 150 stadia from the latter, and 60 from the former. Josephus says, "the whole space from Jerusalem is desert and rocky, and equally barren and uncultivated from Jericho to the lake Asphaltites; yet the places near the town and above it are extremely fertile and delicious, so that it may be justly called a *divine plain*, surpassing the rest of the land of Canaan, no unfruitful country, and surrounded by hills in the manner of an amphitheatre. It produces opobalsamum, myrobalans, and dates; from the last of which it is called the *city of palm trees*, by Moses. The place is now called *Raha*; and is situated, M. Volney informs us, "in a plain six or seven leagues long, by three wide, around which are a number of barren mountains, that render it extremely hot." Here formerly was cultivated the balm of Mecca. From the description of the Hadjes, this is a shrub similar to the pomegranate tree, with leaves like those of rue: it bears a pulpy nut, in which is contained a kernel that yields the resinous juice we call *balm* or *balsam*. At present there is not a plant of it remaining at Raha; but another species is to be found there, called *zakkoun*, which produces a sweet oil, also celebrated for healing wounds. This zakkoun resembles a plum-tree; it has thorns four inches long, with leaves like those of the olive tree, but narrower and greener, and prickly at the end; its fruit is a kind of acorn, with-

Jericho || Jerome.

out a calyx, under the bark of which is a pulp, and then a nut, the kernel of which gives an oil that the Arabs sell very dear; this is the sole commerce of Raha, which is no more than a ruinous village.

JERIMOTH. See JARIMUTH.

JEROME, St, in Latin *Hieronymus*, a famous doctor of the church, and the most learned of all the Latin fathers, was the son of Eusebius; and was born at Stridon, a city of the ancient Pannonia, about the year 340. He studied at Rome under Donatus, the learned grammarian. After having received baptism, he went into Gaul, and there transcribed St Hilary's book *de Synodis*. He then went into Aquileia, where he contracted a friendship with Heliodorus, who prevailed on him to travel with him into Thrace, Pontus, Bithynia, Galatia, and Cappadocia. In 372 St Jerome retired into a desert in Syria, where he was persecuted by the orthodox of Melitius's party, for being a Sabellian, because he made use of the word *Hypostasis*, which had been used by the council of Rome in 369. This obliged him to go to Jerusalem; where he applied himself to the study of the Hebrew language; in order to receive a more perfect knowledge of the Holy Scriptures; and about this time he consented to be ordained, on condition that he should not be confined to any particular church. In 381, he went to Constantinople to hear St Gregory of Nazianzen; and the following year returned to Rome, where he was made secretary to Pope Damasus. He then instructed many Roman ladies in piety and the knowledge of the sciences, which exposed him to the calumnies of those whom he zealously reproved for their irregularities; and Pope Siricius not having all the esteem for him which his learning and virtue justly entitled him to, this learned doctor left Rome, and returned to the monastery of Bethlehem, where he employed himself in writing against those whom he called *heretics*, especially against Vigilantius and Jovinian. He had a quarrel with John of Jerusalem and Rufinus about the Origenists. He was the first who wrote against Pelagius; and died on the 30th of September 420, at about 80 years of age. There have been several editions of his works; the last, which is that of Verona, is in 11 vols. folio. His principal works are, 1. A Latin version of the Holy Scriptures, distinguished by the name of the *Vulgate*. 2. Commentaries on the Prophets, Ecclesiastes, St Matthew's Gospel, and the Epistles to the Galatians, Ephesians, Titus, and Philemon. 3. Polemical treatises against Montanus, Helvidius, Jovinian, Vigilantius, and Pelagius. 4. Several letters. 5. A treatise on the lives and writings of the ecclesiastical authors who had flourished before his time.—St Jerome's style is lively and animated, and sometimes sublime.

Jerome of Prague, so called from the place of his birth, in Bohemia. He was neither a monk nor clergyman, but had a learned education. Having embraced the opinions of John Huss, he began to propagate them in the year 1480. In the mean time the council of Nice kept a watchful eye over him, and considering him as a dangerous person, cited him to appear before them and give an account of his faith. In obedience to this citation, he went to Constance; but on his arrival, in 1415, finding Huss in prison, he set out for his own country. Being seized, however, on the way, imprisoned, and examined, he was so intimidated, that he retracted, and pretended to approve of the condemnation of Wickliff's and Huss's opinions; but on the 26th of May 1416, he condemned that recantation in these terms: "I am not ashamed to confess here publicly my weakness. Yes, with horror I confess my base cowardice. It was only the dread of the punishment by fire which drew me to consent, against my conscience, to the condemnation of the doctrine of Wickliff and Huss." Accordingly sentence was passed on him; in pursuance of which he was delivered to the secular arm, and burnt in 1416. He was a person of great parts, learning, and elocution.

Jerome || Jersey.

JERONYMITES, HIERONYMITES, a denomination given to divers orders or congregations of religious; otherwise called *Hermits of St Jerome*.

JERSEY, an island in the English channel, believed to be the island called in the Itinerary *Cæsarea*, in succeeding times *Augia*, by us *Gersey*, more frequently *Jersey*. It is situated in the English channel, 18 miles to the west of Normandy, and 84 to the south of Portland in Dorsetshire, and in the time of the Romans was called *Cæsarea*. It is not above 12 miles in length, nor much above 6 where broadest, which is at the two extremities. It is defended by rocks and dangerous quicksands. On the north side the cliffs rise 40 or 50 fathoms high, which render it inaccessible on that side; but on the south the shore is almost level with the water. In the west part of the island is a large tract of land once cultivated and very fertile, but now a barren desert, caused by the westerly winds throwing up sand from the bottom to the top of the highest cliffs. The higher lands are diversified by gritty, gravelly, stony, and fine mould; the lower by a deep, rich, and heavy soil. The middle part of the island is somewhat mountainous, and so thick planted with trees, that at a distance it resembles one entire forest, though in walking through it there is hardly a thicket or any other thing to be seen but hedge-rows and orchards of apple-trees. The valleys under the hills are finely watered by brooks, and have plenty of cattle and small sheep, with very fine wool, and very sweet meat, which is ascribed to the shortness of the grass. The horses are good for draught; but few fit for the saddle. The island produces variety of trees, roots, and herbs; but not corn enough for the inhabitants, who therefore send for it to England and France, and sometimes to Dantzic. The fields are inclosed by great mounds of earth, raised from 6 to 8 or 10 feet high, proportionally thick and solid, planted with quicksets and trees. As the air of this island is very healthy, those of the inhabitants who are temperate live to a great age: but the coast is very subject to storms by westerly winds, from which they have no land to shelter them nearer than North America; and there is a vast chain of rocks about the island, among which the tides and currents are so strong and rapid, that the navigation is dangerous to those who are not perfectly acquainted with the coast. The buildings of this island are generally of rag stone; but some of the wealthy inhabitants have their houses fronted with a reddish white stone, capable of being polished like marble, and of which there is a rich quarry on a hill called *Montmado*. The ordinary dwellings are thatched. The churches are very plain buildings, most of them with square steeples; and the communion

Jersey. munion table is not at the east end, as in the English churches, but placed just under the pulpit. The staple manufacture is knit stockings and caps, many thousand pairs of which are weekly sold at St Helier to the merchants: also cyder, of which 25,000 hogsheads have been made here in one year. Their principal foreign trade is to Newfoundland; whither, particularly in 1732, they sent 24 ships; these proceed from thence to the Mediterranean to dispose of their fish.

On the south of the island the sea seems to have encroached upon the land (which, as we have before observed, declines on that side), and to have swallowed upwards of six square miles, making a very beautiful bay of about three miles long, and near the same in breadth. In the east corner of this bay stands the town of St Helier, very happily situated. But the principal haven is in the western corner of the bay, which receives its name from it, being called *St Aubin's*. There are, besides these, several other havens of less note; as, St Brelade's bay, at the back of St Aubin's: the great bay of St Ouen, which takes in the greatest part of the west side of the island, where the largest ships may ride in 12 and 15 fathoms, safe from all but east winds. La Crevasse is a port only for boats; Greve de Lecq and Port St John are also small havens on the north side, where is likewise Bonnenuit. On the east there is the bay of St Catharine, and the harbour of Rosel. To the south-west lies the haven de la Chaussée. The last we shall mention is the Port de Pas, a very little to the eastward of St Aubin's bay.

The towns of St Helier and St Aubin, which, as already mentioned, stand both in the same bay called *St Aubin's bay*, opening to the south, are about three miles asunder. St Helier took its name from *Elerius* or *Helier*, a holy man who lived in this island many centuries ago, and was slain by the Pagan Normans at their coming hither. He is mentioned among the martyrs in the martyrology of Coutance. His little cell with the stone bed is still shown among the rocks; and in memory of him a noble abbey of canons regular was founded in the little island in this bay, and annexed to Cherburg abbey in Normandy in the reign of Henry I. and suppressed as an alien priory. The town of St Helier stands at the foot of a long and high rocky hill at the east end. It is a well-built and populous place; greatly improved and enlarged within the last twenty years, and contained in 1806, 6460 inhabitants. It has been greatly strengthened by fortifications. The market-place in the centre is spacious, surrounded with handsome houses, among which is the Cohue-Royale or court of justice. At the top of the market-place is a statue of George II. of bronze gilt. The market is held on Saturday, and much frequented.

St Aubin at the west end of the bay is principally inhabited by merchants and masters of ships, whom the neighbourhood of the port has invited hither. It is not more than half the size of the other town, though greatly increased within these 100 years; and has a good stone pier carried far into the sea, where ships of considerable burden lie safe under the guns of the adjoining fort.

The isle of St Helier, more to the east in the same bay, is in circuit near a mile, surrounded by the sea at er about every half flood. On the site of the abbey before mentioned is now Elizabeth castle, one of the largest and strongest fortresses in Britain. Queen Elizabeth began it, and gave it her name. Charles I. enlarged, and Charles II. who was twice here, completed it. It was the last fortress that held out for the king. It is the residence of the governor and garrison, and occupies the whole isle, from whence at low water is a passage called the *bridge*, half a mile long, formed of sand and stones. A citadel was begun in the last war on a hill, whence the castle might be bombarded, but since the peace left off. Jersey.

Mount Orgueil castle, called also *Gourray* from the neighbouring village of that name, lies to the south of Rosel harbour in the bay of St Catharine. It was a place of strength before Henry V.'s time, and bid defiance to the attempts of the French under the constable De Guesclin, 1374, at the end of the reign of Edward III. It was repaired by Queen Elizabeth, but is now neglected, yet preserves an air of grandeur answering its name even in ruins. The ascent to its top is by near 200 steps; and from thence by a telescope may be seen the two front towers of the cathedral of Coutance. The famous William Prynne was confined in it three years.

The island is divided into 12 parishes, which are so laid out that each has a communication with the sea; these are subdivided into 52 vintaines, so called from the number of 20 houses, which each is supposed to have formerly contained, just as in England 10 houses anciently made a tything. The whole number of inhabitants amounted to 22,855 in 1806, of which above 3000 are able to bear arms, and are formed into regiments. Their general review is on the sandy bay between the two towns, when they are attended with a train of above 20 brass field pieces, and two small bodies of horse in the wings.

The chief officer is the governor, who has the custody of his majesty's castles, with the command of the garrisons and militia. The civil government is administered by a bailiff, assisted by 12 jurats. They have here also what they call an assembly of the states. These are convened by the governor or his deputy; the bailiff consists of himself and the jurats, the dean and clergy, and the 12 high constables.

There were formerly many druidical temples and altars in Jersey, some remains of which are still to be seen. The cromlichs are here called *pouquelays*, and there are some tumuli and keeps. Roman coins have also been dug up in this island; and there are the remains of a Roman camp in the manor of Dilamant. Christianity was first planted here in the middle of the 6th century, and the island made part of the see of Dol in Bretagne, and it is now governed by a dean. Besides the abbey of St Helier, here were four priories, *Noirmont*, *St Clement*, *Bonnenuit*, and *le Leck*, and above 20 chapels, now mostly ruined. During the last war this island, together with that of Guernsey, became an object of desire to France, whose vanity, no less than her interest, was concerned in depriving Britain of those last remains of her continental possessions. The first attempt to achieve this conquest took place in the year 1779. A force of 5000 or 6000 men was embarked in flat-bottomed boats, and endeavoured to land in the bay of St Ouen, on the first of May. In

this

Jersey. this attempt they were supported by five frigates and other armed vessels; but met with such a vigorous resistance from the militia of the island, assisted by a body of regulars, that they were compelled to retire without having landed a single person. Much discontent and mutual recrimination took place among the French naval and military officers on this failure; and though the expedition was represented by many as ill concerted, and destitute of every hope of success, another attempt was resolved on. Both the troops and seamen that had been employed in the former expedition were equally desirous of retrieving their honour; but they were for some time prevented from making any attempt of this kind by bad weather; and, before another opportunity offered, the squadron which was designed to cover their descent was attacked by Sir James Wallace, who drove them ashore on the coast of Normandy, silenced a battery under whose guns they had taken shelter, captured a frigate of 34 guns, with two rich prizes, burnt two other large frigates, and a considerable number of smaller vessels.

Thus the scheme of invading the island of Jersey was totally disconcerted, and laid aside for that time, but was resumed in the year 1781. The conduct of this second expedition was given to the baron de Rullecourt, who had been second in command when the former attempt was made. He was a man of courage, but fierce and violent in his disposition, and seems to have been very deficient in the prudence and conduct necessary for bringing any military enterprise to a successful issue. The force entrusted to him on the present occasion consisted of 2000 men; with whom he embarked in very tempestuous weather, hoping that he might thus be able to surprise the garrison. Many of his transports, however, were thus dispersed, and he himself, with the remainder, obliged to take shelter in some islands in the neighbourhood of Jersey. As soon as the weather grew calmer, he seized the opportunity of a dark night to effect landing at a place called Grouville, where he made prisoners of a party of militia. Hence he proceeded with the utmost expedition to St Helier's, the capital of the island, about three miles distant. His arrival was so unexpected, that he seized on a party of men who guarded it, together with the commanding officer, and the magistrates of the island. Rullecourt then drew up a capitulation, the terms of which were, that the island should be instantly surrendered to the French, and the garrison be sent to England; threatening the town with immediate destruction in case of non-compliance. It was in vain represented to him that no act of the deputy-governor and magistrates could be valid while they remained in his power; but, as Rullecourt still insisted, they were obliged to comply, lest his menaces should have been carried into execution. This point being gained, he advanced to Elizabeth castle in the neighbourhood of the town, summoning it to surrender in virtue of the capitulation for the town and island just concluded. To this a peremptory refusal was given, and followed by such a vigorous discharge of artillery, that he was obliged to retire into the town. In the mean time the British troops stationed in the island began to assemble from every quarter under the command of Major Pierson; who, on being required by the French commander to submit, replied, that if the French themselves did not, within 20 minutes, lay down their arms, he would attack them. This being refused, an attack was instantly made with such impetuosity, that the French were totally routed in less than half an hour, and driven into the market-place, where they endeavoured to make a stand. Their commander, exasperated at this unexpected turn of affairs, endeavoured to wreak his vengeance on the captive governor, whom he obliged to stand by his side during the whole time of the conflict. This, however, was quickly over; the French were broken on all sides, the baron himself mortally wounded, and the next in command obliged to surrender himself and the whole party prisoners of war; while the captive governor escaped without a wound. This second disaster put an end to all hopes of the French ministry of being able to reduce the island of Jersey, and was indeed no small mortification to them; 800 troops having been landed at that time, of which not one escaped. A monument was erected at the public expence in the church of St Helier, to the memory of Major Pierson, to whom the deliverance of the island was owing; but who unhappily fell in the moment of victory, when only 24 years of age.

All the landing places and creeks round the island are now fortified with batteries, and 17 or 18 watch-houses are erected on the headlands. These are round towers with embrasures for small cannon and loop-holes for musketry; the entrance by a door in the wall out of the reach of man, and to be ascended by a ladder afterwards drawn up. This island, with those of Guernsey, Sark, Alderney, and their appendages, were parcel of the duchy of Normandy, and were united to the crown of England by the first princes of the Norman line. The language of the pulpit, and the bar, is the French, which is that generally spoken by the people at large. They are governed by their own laws, which are for the most part the ducal customs of Normandy, being collected in an ancient book of customs intitled *Le grand coustumier*. The king's writ, or process from the courts of Westminster, is here of no force; but his commission is. They are not bound by any common acts of our parliaments, unless particularly named. All causes are originally determined by their own officers, the bailiff and jurats of the islands. But an appeal lies from them to the king and council in the last resort.—Jersey is an earldom in the Villiers family.

Jersey, New Jersey.

New Jersey, or, as it is commonly called, *the Jerseys*, (being two provinces united into one government,) one of the united states of North America, lying from 39 to 41 degrees of north latitude, and from 73 to 75 degrees 30 minutes longitude west from London; in length 160 miles, in breadth 52.

It is bounded on the east by Hudson's river and the sea; on the south by the sea; on the west by Delaware bay and river, which divide it from the states of Delaware and Pensylvania; and on the north, by a line drawn from the mouth of Mahakkamak river, in latitude 41° 24′, to a point on Hudson's river, in latitude 41°; containing about 8320 square miles, equal to 5,324,800 acres. New Jersey is divided into 13 counties, which are subdivided into 116 townships or precincts. In 1810, a census of the inhabitants was made by order of the legislature, when they amounted to 245,562, of which 18,694 were blacks. Of these blacks

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blacks 10,851 were slaves; so that the proportion of slaves to the whole of the inhabitants in the state is as one to 24. The population for every square mile is 37. As to the face of the country, soil, and productions, the counties of Sussex, Morris, and the northern part Bergen, are mountainous. As much as five-eighths of most of the southern counties, or one-fourth of the whole state, is sandy and barren, unfit for cultivation. The land on the sea coast in this, like that in the most southern states, has every appearance of *made ground*. The soil is generally a light sand; and by digging, on an average, about 50 feet below the surface (which can be done, even at the distance of 20 or 30 miles from the sea, without any impediment from rocks or stones), you come to salt marsh. This state has all the varieties of soil from the worst to the best kind. It has a greater proportion of *barrens* than any of the states. The *barrens* produce little else but shrub oaks and white and yellow pines. In the hilly and mountainous parts of the state, which are not too rocky for cultivation, the soil is of a stronger kind, and covered in its natural state with stately oaks, hickories, chesnuts, &c. &c. and, when cultivated, produces wheat, rye, Indian corn, buck wheat, oats, barley, flax, and fruits of all kinds common to the climate. The land in this hilly country is good for grazing, and the farmers feed great numbers of cattle for New York and Philadelphia markets, and many of them keep large dairies. The markets of New York and Philadelphia receive a very considerable proportion of their supplies from the contiguous parts of New Jersey. And it is worthy of remark that these contiguous parts are exceedingly well calculated, as to the nature and fertility of their soils, to afford these supplies; and the intervention of a great number of navigable rivers and creeks renders it very convenient to market their produce. These supplies consist of vegetables of many kinds, apples, pears, peaches, plums, strawberries, cherries, and other fruits; cyder in large quantities and of the best quality; butter, cheese, beef, pork, mutton, and the lesser meats.

The trade of this state is carried on almost solely with and from those two great commercial cities, New York on one side, and Philadelphia on the other; though it wants not good ports of its own. The articles exported, besides those already mentioned, are wheat, flour, horses, live cattle, hams, which are celebrated as being the best in the world, lumber, flax-seed, leather, and iron in great quantities in pigs and bars. Formerly copper ore was reckoned among their most valuable exports; but the mines have not been worked since the commencement of the late war. The iron manufacture is the greatest source of wealth to the state. Iron works are erected in Gloucester, Burlington, Morris, and other counties. The mountains in the county of Morris give rise to a number of streams necessary and convenient for these works, and at the same time furnish a copious supply of wood and ore of a superior quality. In this county alone are no less than seven rich iron mines, from which might be taken ore sufficient to supply the United States; and to work it into iron are two furnaces, two rolling and slitting mills, and about thirty forges, containing from two to four fires each. These works produce annually about 540 tons of bar iron, 800 tons of pigs, besides large quantities of hollow ware, sheet iron, and nail rods. In the whole state, it is supposed there is yearly made about 1200 tons of bar iron, 1200 do. of pigs, 80 do. of nail rods, exclusive of hollow ware, and various other castings, of which vast quantities are made.

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The character, manners, and customs of the people are various in different parts of the state. The inhabitants are a collection of Low Dutch, German, English, Scotch, Irish, and New Englanders, or their descendants. National attachment and mutual convenience have generally induced those several kinds of people to settle together in a body; and in this way their peculiar national manners, customs, and character, are still preserved, especially amoog the lower class of people, who have little intercourse with any but those of their own nation. Religion, although its tendency is to unite people in those things that are essential to happiness, occasions wide differences as to manners, customs, and even character. The Presbyterian, the Quaker, the Episcopalian, the Baptist, the German and Low Dutch Calvinist, the Methodist, and the Moravian, have each their distinguishing characteristics, either in their worship, their discipline, or their dress. There is still another very perceptible characteristical difference, distinct from either of the others, which arises from the intercourse of the inhabitants with different states. The people in West Jersey trade to Philadelphia, and of course imitate their fashions, and imbibe their manners. The inhabitants of East Jersey trade to New York, and regulate their fashions and manners according to those of New York. So that the difference in regard to fashions and manners between East and West Jersey, is nearly as great as between New York and Philadelphia. The people of New Jersey are generally industrious, frugal, and hospitable. There are, comparatively, but few men of learning in the state, nor can it be said that the people in general have a taste for the sciences. The lower class, in which may be included three-fifths of the inhabitants of the whole state, are ignorant, and are criminally neglectful in the education of their children. There are, in this state, sixty-four Presbyterian congregations, subject to the care of three presbyteries, viz. that of New York, of New Brunswick, and Philadelphia; 40 congregations of the Friends; 24 of the Baptists, 25 of Episcopalians; 33 of the Dutch, besides a few Moravians and Methodists.

There are two colleges in New Jersey; one at Princeton, called *Nassau Hall;* the other at Brunswick, called *Queen's-college*. The college at Princeton was first founded about the year 1738, and enlarged by Governor Belcher in 1747. It has an annual income of about 1000l. sterling, exclusive of certain funds for the education of poor and pious youth destined for the church. There is a grammar-school of about 30 scholars, connected with the college, under the superintendance of the president, and taught by two masters. Before the late revolution this college was furnished with a philosophical apparatus worth 500l. which (except the elegant orrery constructed by Mr Rittenhouse) was almost entirely destroyed during the war, as was also the library, which now consists of between 2000 and 3000 volumes.—The charter for Queen's-college at Brunswick was granted just before the war, in consequence of an application from a body of the Dutch church,

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church. Its funds, raised wholly by free donations, amounted soon after its establishment to 4000l.; but they were considerably diminished by the war. The students are under the care of a president. This college has lately increased both in numbers and reputation. There are also a number of flourishing academies in this state; one at Trenton, another in Hakkensak, others at Orangedale, Freehold, Elizabeth-town, Burlington, Newark, Springfield, Morristown, Bordentown, and Amboy: but there are no regular establishments for common schools. The usual mode of education is for the inhabitants of a village or neighbourhood to join in affording a temporary support for a schoolmaster, upon such terms as is mutually agreeable. But the encouragement which these occasional teachers meet with, is generally such as that no person of abilities adequate to the business will undertake it, and of course little advantage is derived from these schools.

There are a number of towns in this state, nearly of equal size and importance.—*Trenton* is the largest town in New Jersey. This town, with Lamberton, which joins it on the south, contained 6312 inhabitants in 1810. Here the legislature meets, the supreme court sits, and the public offices are all kept, except the secretary's, which is at Burlington. On these accounts it is considered as the capital of the state.—*Burlington* stands on the east side of the Delaware, 20 miles from Philadelphia by water, and 17 by land. The island, which is the most populous part of the city, is a mile and a quarter in length, and three quarters of a mile in breadth. Burlington contained 2419 inhabitants in 1810. There are two houses for public worship in the town, one for the Friends and Quakers, who are the most numerous, and one for the Episcopalians. The other public buildings are two market-houses, a court-house, and the best gaol in the state. Besides these, there is an academy, a free school, a nail manufactory, and an excellent distillery, if that can be called excellent which produces a poison both of health and morals.—*Perth Amboy* stands on a neck of land included between Raritan river and Arthur Kull sound. It lies open to Sandy Hook, and has one of the best harbours on the continent. Vessels from sea may enter it in one tide, in almost any weather.—*Brunswick* was incorporated in 1784, and is situated on the south-west side of Raritan river, 12 miles above Amboy. It contains about 200 houses and 1600 inhabitants, one-half of which are Dutch. Its situation is low and unpleasant, being on the bank of the river, and under a high hill which rises back of the town.—*Princeton* is a pleasant healthy village, 52 miles from New York, and 43 from Philadelphia.—*Elizabeth town* and *Newark* are pleasant towns; the former is 15, and the latter nine miles from New York. Newark is famed for its good cyder.

The government of this state is vested in a governor, legislative council, and general assembly. The governor is chosen annually by the council and assembly jointly. The legislative council is composed of one member from each county, chosen annually by the people. The general assembly is composed of three members from each county, chosen by the freemen. The council choose one of their members to be vice-president, who, when the governor is absent from the state, possesses the supreme executive power. The council may originate any bills, excepting preparing and altering any money bill, which is the sole prerogative of the assembly.

New Jersey ‖ Jerusalem.

The first settlers of New Jersey were a number of Dutch emigrants from New York, who came over between the years 1614 and 1620, and settled in the county of Bergen. Next after these, in 1627, came over a colony of Swedes and Finns, and settled on the river Delaware. The Dutch and Swedes, though not in harmony with each other, kept possession of the country many years. In March 1664, Charles II. granted all the territory called by the Dutch *New Netherlands*, to his brother the duke of York. And in June 1664, the duke granted that part now called *New Jersey* to Lord Berkeley of Stratton, and Sir George Carteret, jointly; who, in 1665, agreed upon certain concessions with the people for the government of the province, and appointed Philip Carteret, Esq. their governor.—The Dutch reduced the country in 1672; but it was restored by the peace of Westminster, February 9. 1674.

This state was the seat of war for several years, during the bloody contest between Great Britain and America; and her losses, both of men and property, in proportion to the population and wealth of the state, were greater than of any other of the thirteen states.

JERSEY, among woolcombers, denotes the finest wool, taken from the rest by dressing it with a Jersey comb.

JERUSALEM, a very famous and ancient city, capital of Judea or Palestine, now a province of Turkey in Asia. According to Manetho, an Egyptian historian, it was founded by the shepherds who invaded Egypt in an unknown period of antiquity *. According to Josephus, it was the capital of Melchisedek's kingdom, called *Salem* in the book of Genesis: and the Arabians assert, that it was built in honour of Melchisedek by 12 neighbouring kings; which, when they had done, he called it *Jerusalem*. We know nothing of it with certainty, however, till the time of King David, who took it from the Jebusites, and made it the capital of his kingdom, which it ever after continued to be. It was first taken in the days of Jehoash, by Hazael the king of Syria, who slew all the nobility, but did not destroy their city. It was afterwards taken by Nebuchadnezzar king of Babylon, who destroyed it, and carried away the inhabitants. Seventy years after, permission was granted by Cyrus king of Persia to the Jews to rebuild their city, which was done; and it continued the capital of Judea (though frequently suffering much from the Grecian monarchs of Syria and Egypt), till the time of Vespasian emperor of Rome, by whose son Titus it was totally destroyed †. It was, however, rebuilt by Adrian; and seemed likely to have recovered its former grandeur, being surrounded with walls, and adorned with several noble buildings; the Christians also being permitted to settle in it. But this was a short-lived change; so that when the empress Helena, mother of Constantine the Great, came to visit this city, she found it in the most forlorn and ruinous situation. Having formed a design of restoring it to its ancient lustre, she caused, with a great deal

* See *Egypt*, N° 2.

† See *Jews*.

Jerusalem. deal of cost and labour, all the rubbish that had been thrown upon those places where our Saviour had suffered, been buried, &c. to be removed. In doing this, they found the cross on which he died, as well as those of the two malefactors who suffered with him; and, as the writers of those times relate, discovered by a miracle that which had borne the Saviour of mankind. She then caused a magnificent church to be built, which inclosed as many of the scenes of our Saviour's sufferings as could conveniently be done, and adorned the city with several other buildings. The emperor Julian is said to have formed a design of rebuilding the temple of Jerusalem, and of restoring the Jewish worship. This scheme was contrived on purpose to give the lie to our Saviour's prophecy concerning the temple and city of Jerusalem; namely, that the first should be totally destroyed, without one stone being left upon another; and that Jerusalem should be trodden down of the Gentiles till the times of the Gentiles were fulfilled. In this attempt, however, according to the accounts of the Christian writers of that age, the emperor was frustrated by an earthquake and fiery eruption from the earth, which totally destroyed the work, consumed the materials which had been collected, and killed a great number of the workmen.

This event hath been the subject of much dispute. Mr Warburton, who hath published a treatise expressly on the truth of this fact, hath collected the following testimonies in favour of it. The first is that of Ammianus Marcellinus, who tells us, "Julian (having been already thrice consul), taking Sallust, prefect of the several Gauls, for his colleague, entered a fourth time on this high magistracy; and although his sensibility of the many and great events which this year was likely to produce made him very anxious for the future, yet he both pushed on the various and complicated preparatives for this expedition with the utmost application, and, having an eye in every quarter, and being desirous to eternize his reign by the greatness of his achievements, he projected to rebuild at an immense expence the proud and magnificent temple of Jerusalem; which (after many combats, attended with much bloodshed on both sides, during the siege by Vespasian) was with great difficulty taken and destroyed by Titus. He committed the conduct of this affair to Alypius of Antioch, who had formerly been lieutenant in Britain. When therefore this Alypius had set himself to the vigorous execution of his charge, in which he had all the assistance that the governor of the province could afford him, horrible balls of fire breaking out near the foundations, with frequent and reiterated attacks, rendered the place from time to time inaccessible to the scorched and blasted workmen; and the victorious element continuing, in this manner, obstinately and resolutely bent, as it were, to drive them to a distance, Alypius thought best to give over the enterprise."

The next testimony is that of Gregory Nazianzen. Speaking of the emperor Julian, he says, "After having run through a course of every other tyrannical experiment against the faith, and upon trial despising all of them as trifling and contemptible, he at last brought down the whole body of the Jews upon us; whom, for their ancient turn to seditious novelties, and an inveterate hatred of the Christian name, he chose as the fittest instrument for his machinations. Jerusalem. These, under a show of great good-will, which hid his secret purpose, he endeavoured to convince from their sacred books and traditions, which he took upon him to interpret, that now was come the time foretold when they should return to their own land, rebuild their temple, and restore the law to its ancient force and splendour. When these things had been thoroughly insinuated, and heartily entertained (for deceit finds easy admittance when it flatters our passions), the Jews set upon the work of rebuilding with great attention, and pushed on the project with the utmost labour and application. But when, now driven from their work by a violent whirlwind and a sudden earthquake, they fled together for refuge to a certain neighbouring church (some to deprecate the impending mischief; others, as is natural in such cases, to catch at any help that presents itself; and others again, enveloped in the crowd, were carried along with the body of those who fled); there are who say, the church refused them entrance; and that when they came to the doors, which were wide open but a moment before, they found them on a sudden closed by a secret and invisible hand; a hand accustomed to work these wonders by the terror and confusion of the impious, and for the security and comfort of godly men. This, however, is now invariably affirmed and believed by all, that as they strove to force their way in by violence, the fire which burst from the foundations of the temple, met and stopped them. One part it burnt and destroyed, and another it desperately maimed, leaving them a living monument of God's commination and wrath against sinners. Thus the affair passed; and let no man continue incredulous concerning this or the other miraculous works of God. But still the thing most wonderful and illustrious was, a light which appeared in the heavens, of a cross within a circle. That name and figure which impious men before esteemed so dishonourable upon earth, was now raised on high, and equally objected to the common view of all men; advanced by God himself as the trophy of his victory over unbelievers; of all trophies the most exalted and sublime. Nay further, they who were present, and partakers of the miracle we are now about to speak of, shew to this very day the sign or figure of the cross which was then marked or impressed upon their garments. For at that time, as these men (whether such as were of us or strangers) were showing these marks, or attending to others who showed them, each presently observed the wonder, either on himself or his neighbour; having a radiant mark on his body or on his garment, in which there is something that, in art and elegance, exceeded all painting or embroidery."

Notwithstanding these testimonies, however, this fact hath been strenuously contested by others; and indeed it must be owned that the testimonies above mentioned are by no means unexceptionable. In the last, particularly, the propensity to the marvellous is so exceedingly great, that every one must at first sight be struck with it. It is true indeed, the most miraculous part of it, as it seemed to be to Gregory, namely, the appearance of crosses upon the garments and bodies of some of the people who were struck, may be explained upon a natural principle; since we

Jerusalem.

are assured that lightning will sometimes produce effects of this kind*: but even this is no decisive proof of the authenticity of the relation; though it cannot by any means discredit it, as some think. On the whole, however, it is not a matter of any consequence whether this event happened with the circumstances above mentioned or not. If Julian did make any attempt to rebuild the temple, it is certain that something obstructed the attempt, because the temple was never actually rebuilt. If he made no such attempt, the prophecy of our Saviour still holds good; and it surely cannot be thought to detract from the merit of a prophecy, that no body ever attempted to elude it, or prove it to be a falsehood.

*See *Lightning.*

Jerusalem continued in the hands of the eastern emperors till the reign of the caliph Omar, who reduced it under his subjection. The Saracens continued in possession of it till the year 1099, when it was taken by the Crusaders. They founded a new kingdom, of which Jerusalem was the capital, which lasted 88 years under nine kings. At last this kingdom was utterly ruined by Saladin; and though the Christians once more got possession of the city, they were again obliged to relinquish it. In 1217, the Saracens were expelled by the Turks, who have ever since continued in possession of it.

The city of Jerusalem, in its most flourishing state, was divided into four parts, each inclosed with its own walls; viz. 1. The old city of Jebus, which stood on Mount Zion, where the prophets dwelt, and where David built a magnificent castle and palace, which became the residence both of himself and successors; on which account it was emphatically called *the City of David.* 2. The lower city, called also *the Daughter of Zion*, being built after it; on which stood the two magnificent palaces which Solomon built for himself and his queen; that of the Maccabean princes; and the stately amphitheatre built by Herod, capable of containing 80,000 spectators; the strong citadel, built by Antiochus, to command and overtop the temple, but afterwards razed by Simon the Maccabee, who recovered the city from the Syrians; and lastly, a second citadel, built by Herod, upon a high and craggy rock, and called by him *Antonia.* 3. The new city, mostly inhabited by tradesmen, artificers, and merchants; and, 4. Mount Moriah, on which was built the so famed temple of Solomon, described in the sixth and seventh chapters of the second book of Kings; and, since then, that rebuilt by the Jews on their return from Babylon, and afterwards built almost anew and greatly adorned and enriched by Herod.

Some idea of the magnificence of this temple may be had from the following considerations. 1. That there were no less than 163,300 men employed in the work. 2. That notwithstanding that prodigious number of hands, it took up seven whole years in building. 3. That the height of this building was 120 cubits, or 82 yards, rather more than less; and the courts round it about half as high. 4. That the front on the east side, was sustained by ramparts of square stone, of vast bulk, and built up from the valley below, which last was 300 cubits high, and being added to that of the edifice amounted to 420 cubits; to which, if we add, 5. The height of the principal tower above all the rest, viz. 60, will bring it to 480 cubits, which reckoning at two feet to a cubit, will amount to 960 feet; but according to the length of that measure, as others reckon it, viz. at two feet and a half, it will amount to 1200 feet; a prodigious height this from the ground, and such as might well make Josephus say, that the very design of it was sufficient to have turned the brain of any but Solomon. 6. These ramparts, which were raised in this manner, to fill up the prodigious chasm made by the deep valley below, and to make the area of a sufficient breadth and length for the edifice, were 1000 cubits in length at the bottom, and 800 at the top, and the breadth of them 100 more. 7. The huge buttresses which supported the ramparts were of the same height, square at the top, and 50 cubits broad, and jutted out 150 cubits at the bottom. 8. The stones, of which they were built, were, according to Josephus, 40 cubits long, 12 thick, and 8 high, all of marble, and so exquisitely joined, that they seemed one continued piece, or rather polished rock. 9. According to the same Jewish historian, there were 1453 columns of Parian marble, and twice that number of pilasters; and of such thickness, that three men could hardly embrace them, and their height and capitals proportionable, and of the Corinthian order. But it is likely Josephus hath given us these two last articles from the temple of Herod, there being nothing like them mentioned by the sacred historians, but a great deal about the prodigious cedars of Lebanon used in that noble edifice, the excellent workmanship of them adapted to their several ends and designs, together with their gildings and other curious ornaments. The only thing more we shall venture to add is, what is affirmed in Scripture, that all the materials of this stupendous fabric were finished and adapted to their several ends before they were brought to Jerusalem, that is, the stones in their quarries, and the cedars in Lebanon; so that there was no noise of axe, hammer, or any tool, heard in the rearing of it.

Jerusalem.

At present Jerusalem is called by the Turks *Cudsembaric*, and *Coudsheriff;* and is reduced to a poor thinly inhabited town, about three miles in circumference, situated on a rocky mountain, surrounded on all sides, except the north, with steep ascents and deep valleys; and these again environed with other hills at some distance from them. In the neighbourhood of the city there grew some corn, vines, olives, &c. The stately church erected by the empress Helena, on Mount Calvary, is still standing. It is called the *church of the sepulchre;* and is kept in good repair by the generous offerings of a constant concourse of pilgrims, who annually resort to it, as well as by the contributions of several Christian princes. The walls of this church are of stone, and the roof of cedar; the east end incloses Mount Calvary, and the west the holy sepulchre: the former is covered with a noble cupola, open at top, and supported by 16 massive columns. Over the high altar, at the east end, is another stately dome. The nave of the church constitutes the choir; and in the inside aisle are shown the places where the most remarkable circumstances of our Saviour's passion were transacted, together with the tombs of Godfrey and Baldwin, the two first Christian kings of Jerusalem. In the chapel of the crucifixion is shown the very hole in the rock in which the cross is said to have

Jerusalem. have been fixed. The altar in this chapel hath three crosses on it; and is richly adorned, particularly with four lamps of immense value that hang before it, and are kept constantly burning. At the west end is that of the sepulchre, which is hewn in that form out of the solid rock, and hath a small dome supported by pillars of porphyry. The cloister round the sepulchre is divided into sundry chapels, appropriated to the several sorts of Christians who reside there; as Greeks, Armenians, Maronites, Jacobites, Copts, Abyssines, Georgians, &c. and on the north-west side of it are the apartments of the Latins, who have the care of the church, and are forced to reside constantly in it; the Turks keeping the keys of it, and not suffering any of them to go out, but obliging them to receive their provisions in at a wicket. At Easter there are some grand ceremonies performed in the church, representing our Lord's passion, crucifixion, death, and resurrection, at which a vast concourse of pilgrims commonly assist. For a particular account of them, we refer the reader to Doctors Shaw and Pococke.

On Mount Moriah, on the south-east part of the city, is an edifice called *Solomon's Temple*, standing on or near the same spot as the ancient; but when or by whom erected is uncertain. In the midst of it is a Turkish mosque, where the Jewish sanctum sanctorum is supposed to have stood. The building, which Dr Pococke thinks must have been formerly a Christian church, is held in the utmost veneration by the Turks.

The city is now under the government of a sangiac, who resides in a house said to have been that of Pontius Pilate, over-against the castle of Antonia built by Herod the Great. Many of the churches erected in memory of some remarkable gospel transaction, have been since converted into mosques; into some of which money will procure admittance, but not into others. Both the friars and other Christians are kept so poor by the tyranny of the government, that the chief support and trade of the place consists in providing strangers with food and other accommodations, and selling them beads, relics, and other trinkets, for which they are obliged to pay considerable sums to the sangiac, as well as to his officers; and those are seldom so well contented with their usual duties, but they frequently extort some fresh ones, especially from the Franciscans, whose convent is the common receptacle for all pilgrims, and for which they have considerable allowances from the pope, and other crowned heads, besides the presents which strangers generally make them at their departure. The most remarkable antiquities in the neighbourhood of Jerusalem are, 1. The pools of Bethesda and Gihon; the former 120 paces long, 40 broad, and at least eight deep, but now without water; and the old arches, which it still discovers at the west end, are quite damned up: the other, which is about a quarter of a mile without Bethlehem gate, is a very stately relick, 106 paces long, and 60 broad, lined with a wall and plaster, and still well stored with water. 2. The tomb of the Virgin Mary, in the valley of Jehoshaphat, into which one descends by a magnificent flight of 47 steps. On the right hand, as one goes down is also the sepulchre of St Ann, the mother, and on the left that of Joseph the husband, of the virgin mother: some add likewise that of Jehoiakim her father. In all these are erected altars for priests of all sorts to say mass, and the whole is cut into the solid rock. 3. The tomb of King Jehoshaphat, cut likewise into the rock, and divided into several apartments; in one of which is his tomb, which is adorned with a stately portico and entablature over it. 4. That commonly called *Absalom's pillar* or *place*, as being generally supposed to be that which he is said to have erected in his lifetime to perpetuate his memory, as he had no male issue. The place, however, both within and without, hath more the resemblance of a sepulchre than any thing else: though we do not read that he was buried there, neither do the people here affirm that he was. There is a great heap of stones about it, which is continually increasing; the superstitious Jews and Turks always throwing some as they pass, in token of their abhorrence of Absalom's unnatural rebellion against so good and holy a parent. The structure itself is about 20 cubits square, and 60 high, rising in a lofty square, adorned below with four columns of the Ionic order, with their capitals, entablatures, &c. to each front. From the height of 20 to 40 cubits, it is somewhat less, and quite plain, excepting a small fillet at the upper end; and from 40 to the top it changes into a round, which grows gradually into a point, the whole cut out of the solid rock. There is a room within, considerably higher than the level of the ground without, on the sides of which are niches, probably to receive coffins. 5. A little eastward of this is that called the *tomb of Zechariah*, the son of Barachiah, whom the Jews slew between the temple and the altar, as is commonly supposed. This fabric is all cut out of the natural rock, 18 feet high, and as many square; and adorned with Ionic columns on each front, cut likewise out of the same rock, and supporting a cornice. The whole ends in a pointed top, like a diamond. But the most curious, grand, and elaborate pieces, in this kind, are the grotts without the walls of Jerusalem, styled the *royal sepulchres*; but of what kings is not agreed on. They consist of a great number of apartments, some of them spacious, all cut out of the solid marble rock; and may justly be pronounced a royal work, and one of the most noble, surprising, and magnificent. For a particular account of them we must refer the reader, for want of room, to Pococke's Travels. In the neighbourhood of Jerusalem is a spot of ground, about 30 yards long, and 15 broad, now the burying place of the Armenians, which is shown as the Aceldama, or Field of Blood, formerly the Potters Field, and since styled *Campo Sancto*, or the *Holy Field*, purchased with the price of Judas's treason, for the burial of strangers. It is walled round, to prevent the Turks abusing the bones of Christians; and one half of it is taken up by a building in the nature of a charnel house. Besides the above, a great many other antiquities in the city and its environs are shown to strangers; there being scarce any place or transaction mentioned either in the Old or New Testament, but they show the very spot of ground where the one stood, and the other was done; not only here, but all over Judea.

Jerusalem, Jesi.

JESI, an ancient town of Italy, in the territory of the church, and in the marca or march of Ancona,

Jesuits.

with a bishop's see. It is seated on a mountain, near a river of the same name, in E. Long. 12. 20. N. Lat. 43. 50.

JESSO, JEDSO, or *Yadso*, a large island of Asia, to the north of Niphon, and said to be governed by a prince tributary to the empire of Japan; but is very little known to the Europeans, so that nothing can be said with certainty concerning it.

JESSES, ribbons that hang down from garlands or crowns in falconry; also short straps of leather fastened to the hawk's legs, and so to vervels.

JESTING, or *concise wit*, as distinguished from continued wit or humour, lies either in the thought, or the language, or both. In the first case it does not depend upon any particular words or turn of the expression. But the greatest fund of jests lies in the language, i. e. in tropes or verbal figures; those afforded by tropes consist in the metaphorical sense of the words, and those of verbal figures principally turn upon a double sense of the same word, or a similitude of sound in different words. The third kind of jokes, which lie both in the sense and language, arise from figures of sentences, where the figure itself consists in the sense, but the wit turns upon the choice of the words.

JESUITS, or *the Society of Jesus;* a famous religious order of the Romish church, founded by Ignatius Loyola. See IGNATIUS.—The plan which this fanatic formed of its constitution and laws was suggested, as he gave out, and as his followers still teach, by the immediate inspiration of heaven. But notwithstanding this high pretension, his design met at first with violent opposition. The pope, to whom Loyola had applied for the sanction of his authority to confirm the institution, referred his petition to a committee of cardinals. They represented the establishment to be unnecessary as well as dangerous, and Paul refused to grant his approbation of it. At last, Loyola removed all his scruples by an offer which it was impossible for any pope to resist. He proposed, that besides the three vows of poverty, of chastity, and of monastic obedience, which are common to all the orders of regulars, the members of his society should take a fourth vow of obedience to the pope, binding themselves to go whithersoever he should command for the service of religion, and without requiring any thing from the holy see for their support. At a time when the papal authority had received such a shock by the revolt of so many nations from the Romish church; at a time when every part of the popish system was attacked with so much violence and success, the acquisition of a body of men, thus peculiarly devoted to the see of Rome, and whom it might set in opposition to all its enemies, was an object of the highest consequence. Paul instantly perceiving this, confirmed the institution of the Jesuits by his bull, granted the most ancient privileges to the members of the society, and appointed Loyola to be the first general of the order. The event hath fully justified Paul's discernment, in expecting such beneficial consequences to the see of Rome from this institution. In less than half a century, the society obtained establishments in every country that adhered to the Roman Catholic church: its power and wealth increased amazingly; the number of its members became great: their character as well as accomplishments were still greater; and the Jesuits were celebrated by the friends and dreaded by the enemies of the Romish faith as the most able and enterprising order in the church.

1 Foundation of the order.

2 Confirmed by the pope, and from what motives.

Jesuits.

The constitution and laws of the society were perfected by Laynez and Aquaviva, the two generals who succeeded Loyola; men far superior to their master in abilities and in the science of government. They framed that system of profound and artful policy which distinguishes the order. The large infusion of fanaticism mingled with its regulations should be imputed to Loyola its founder. Many circumstances concurred in giving a peculiarity of character to the order of Jesuits, and in forming the members of it not only to take greater part in the affairs of the world than any other body of monks, but to acquire superior influence in the conduct of them.

3 The object of the order singular.

The primary object of almost all the monastic orders is to separate men from the world, and from any concern in its affairs. In the solitude and silence of the cloister, the monk is called to work out his own salvation by extraordinary acts of mortification and piety. He is dead to the world, and ought not to mingle in its transactions. He can be of no benefit to mankind but by his example and by his prayers. On the contrary, the Jesuits are taught to consider themselves as formed for action. They are chosen soldiers, bound to exert themselves continually in the service of God, and of the pope his vicar on earth. Whatever tends to instruct the ignorant, whatever can be of use to reclaim or to oppose the enemies of the holy see, is their proper object. That they may have full leisure for this active service, they are totally exempted from those functions the performance of which is the chief business of other monks. They appear in no processions; they practise no rigorous austerities; they do not consume one half of their time in the repetition of tedious offices: but they are required to attend to all the transactions of the world, on account of the influence which these may have upon religion; they are directed to study the dispositions of persons in high rank, and to cultivate their friendship; and by the very constitution as well as genius of the order, a spirit of action and intrigue is infused into all its members.

4 Peculiarities in its policy.

As the object of the society of Jesuits differed from that of the other monastic orders, the diversity was no less in the form of its government. The other orders are to be considered as voluntary associations, in which whatever affects the whole body is regulated by the common suffrage of all its members. The executive power is vested in the persons placed at the head of each convent or of the whole society; the legislative authority resides in the community. Affairs of moment, relating to particular convents, are determined in conventual chapters; such as respect the whole order are considered in general congregations. But Loyola, full of the ideas of implicit obedience, which he had derived from his military profession, appointed that the government of his order should be purely monarchical. A general, chosen for life by deputies from the several provinces, possessed power that was supreme and independent, extending to every person and to every case. He, by his sole authority, nominated provincials, rectors, and every other officer employed in the government of the society, and could remove them.

Jesuits. them at pleasure. In him was vested the sovereign administration of the revenues and funds of the order. Every member belonging to it was at his disposal; and by his uncontrollable mandate he could impose on them any task, or employ them in what service soever he pleased. To his commands they were required to yield not only outward obedience, but to resign up to him the inclinations of their own wills and the sentiments of their own understandings. They were to listen to his injunctions as if they had been uttered by Christ himself. Under his direction they were to be mere passive instruments, like clay in the hands of the potter, or like dead carcases incapable of resistance. Such a singular form of policy could not fail to impress its character on all the members of the order, and to give a peculiar force to all its operations. There is not in the annals of mankind any example of such a perfect despotism, exercised not over monks shut up in the cells of a convent, but over men dispersed among all the nations of the earth.

5 ower of e gene- l.

As the constitutions of the order vest in the general such absolute dominion over all its members, they carefully provide for his being perfectly informed with respect to the character and abilities of his subjects. Every novice who offers himself as a candidate for entering into the order is obliged to manifest his conscience to the superior, or a person appointed by him; and is required to confess not only his sins and defects, but to discover the inclinations, the passions, and the bent of his soul. This manifestation must be renewed every six months. The society, not satisfied with penetrating in this manner into the innermost recesses of the heart, directs each member to observe the words and actions of the novices: they are constituted spies upon their conduct, and are bound to disclose every thing of importance concerning them to the superior. In order that this scrutiny into their character may be as complete as possible, a long noviciate must expire, during which they pass through the several gradations of ranks in the society; and they must have attained the full age of thirty-three years before they can be admitted to take the final vows, by which they become professed members. By these various methods, the superiors, under whose immediate inspection the novices are placed, acquire a thorough knowledge of their dispositions and talents. In order that the general, who is the soul that animates and moves the whole society, may have under his eye every thing necessary to inform or direct him, the provincials and heads of the several houses are obliged to transmit to him regular and frequent reports concerning the members under their inspection. In these they descend into minute details with respect to the character of each person, his abilities natural or acquired, his temper, his experience in affairs, and the particular department for which he is best fitted. These reports, when digested and arranged, are entered into registers kept of purpose, that the general may, at one comprehensive view, survey the state of the society in every corner of the earth; observe the qualifications and talents of its members; and thus choose, with perfect information, the instruments which his absolute power can employ in any service for which he thinks meet to destine them.

As it was the professed intention of the order of Jesuits to labour with unwearied zeal in promoting the salvation of men, this engaged them of course in many active functions. From their first institution, they considered the education of youth as their peculiar province; they aimed at being spiritual guides and confessors; they preached frequently in order to instruct the people; they set out as missionaries to convert unbelieving nations. The novelty of the institution, as well as the singularity of its objects, procured the order many admirers and patrons. The governors of the society had the address to avail themselves of every circumstance in its favour; and in a short time the number as well as influence of its members increased wonderfully. Before the expiration of the sixteenth century, the Jesuits had obtained the chief direction of the education of youth in every catholic country in Europe. They had become the confessors of almost all its monarchs; a function of no small importance in any reign, but, under a weak prince, superior even to that of minister. They were the spiritual guides of almost every person eminent for rank or power. They possessed the highest degree of confidence and interest with the papal court, as the most zealous and able champions for its authority. The advantages which an active and enterprising body of men might derive from all these circumstances are obvious. They formed the minds of men in their youth. They retained an ascendant over them in their advanced years. They possessed, at different periods, the direction of the most considerable courts in Europe. They mingled in all affairs. They took part in every intrigue and revolution. The general, by means of the extensive intelligence which he received, could regulate the operations of the order with the most perfect discernment; and, by means of his absolute power, could carry them on with the utmost vigour and effect.

Jesuits. 6 Progress of the power and influence of the order.

Together with the power of the order, its wealth continued to increase. Various expedients were devised for eluding the obligation of the vow of poverty. The order acquired ample possessions in every catholic country; and by the number as well as magnificence of its public buildings, together with the value of its property, moveable or real, it vied with the most opulent of the monastic fraternities. Besides the sources of wealth common to all the regular clergy, the Jesuits possessed one which was peculiar to themselves. Under pretext of promoting the success of their missions, and of facilitating the support of their missionaries, they obtained a special license from the court of Rome to trade with the nations which they laboured to convert. In consequence of this, they engaged in an extensive and lucrative commerce both in the East and West Indies. They opened warehouses in different parts of Europe, in which they vended their commodities. Not satisfied with trade alone, they imitated the example of other commercial societies, and aimed at obtaining settlements. They acquired possession accordingly of a large and fertile province in the southern continent of America, and reigned as sovereigns over some hundred thousand subjects.

7 Of its wealth.

Unhappily for mankind, the vast influence which the order of Jesuits acquired by all these different means, has been often exerted with the most pernicious effect. Such was the tendency of that discipline observed by the society in forming its members, and such

8 Pernicious effects of these on civil society.

the

Jesuits. the fundamental maxims in its constitution, that every Jesuit was taught to regard the interest of the order as the capital object to which every consideration was to be sacrificed. This spirit of attachment to their order, the most ardent perhaps that ever influenced any body of men, is the characteristic principle of the Jesuits, and serves as a key to the genius of their policy as well as the peculiarities in their sentiments and conduct.

As it was for the honour and advantage of the society that its members should possess an ascendant over persons in high rank or of great power; the desire of acquiring and preserving such a direction of their conduct with greater facility has led the Jesuits to propagate a system of relaxed and pliant morality, which accommodates itself to the passions of men, which justifies their vices, which tolerates their imperfections, which authorises almost every action that the most audacious or crafty politician would wish to perpetrate.

As the prosperity of the order was intimately connected with the preservation of the papal authority, the Jesuits, influenced by the same principle of attachment to the interests of their society, have been the most zealous patrons of those doctrines which tend to exalt ecclesiastical power on the ruins of civil government. They have attributed to the court of Rome a jurisdiction as extensive and absolute as was claimed by the most presumptuous pontiffs in the dark ages. They have contended for the entire independence of ecclesiastics on the civil magistrates. They have published such tenets concerning the duty of opposing princes who were enemies of the Catholic faith, as countenanced the most atrocious crimes, and tended to dissolve all the ties which connect subjects with their rulers.

As the order derived both reputation and authority from the zeal with which it stood forth in defence of the Romish church against the attacks of the reformers, its members, proud of this distinction, have considered it as their peculiar function to combat the opinions and to check the progress of the Protestants. They have made use of every art, and have employed every weapon against them. They have set themselves in opposition to every gentle or tolerating measure in their favour. They have incessantly stirred up against them all the rage of ecclesiastical and civil persecution.

Monks of other denominations have indeed ventured to teach the same pernicious doctrines, and have held opinions equally inconsistent with the order and happiness of civil society. But they, from reasons which are obvious, have either delivered such opinions with greater reserve, or have propagated them with less success. Whoever recollects the events which have happened in Europe during two centuries, will find that the Jesuits may justly be considered as responsible for most of the pernicious effects arising from that corrupt and dangerous casuistry, from those extravagant tenets concerning ecclesiastical power, and from that intolerant spirit, which have been the disgrace of the church of Rome throughout that period, and which have brought so many calamities upon civil society.

But, amidst many bad consequences flowing from the institution of this order, mankind, it must be acknowledged, have derived from it some considerable advantages. As the Jesuits made the education of youth one of their capital objects, and as their first attempts to establish colleges for the reception of students were violently opposed by the universities in different countries, it became necessary for them, as the most effectual method of acquiring the public favour, to surpass their rivals in science and industry. This prompted them to cultivate the study of ancient literature with extraordinary ardour. This put them upon various methods for facilitating the instruction of youth; and by the improvements which they made in it, they have contributed so much towards the progress of polite learning, that on this account they have merited well of society. Nor has the order of Jesuits been successful only in teaching the elements of literature; it has produced likewise eminent masters in many branches in science, and can alone boast of a greater number of ingenious authors than all the other religious fraternities taken together.

Jesuits.

9 Some advantages resulting from the institution of this order.

But it is in the new world that the Jesuits have exhibited the most wonderful display of their abilities, and have contributed most effectually to the benefit of the human species. The conquerors of that unfortunate quarter of the globe had nothing in view but to plunder, to enslave, and to exterminate its inhabitants. The Jesuits alone have made humanity the object of their settling there. About the beginning of the 17th century, they obtained admission into the fertile province of Paraguay, which stretches across the southern continent of America, from the bottom of the mountains of Potosi to the confines of the Spanish and Portuguese settlements on the banks of the river De la Plata. They found the inhabitants in a state little different from that which takes place among men when they first begin to unite together; strangers to the arts, subsisting precariously by hunting or fishing, and hardly acquainted with the first principles of subordination and government. The Jesuits set themselves to instruct and to civilize these savages. They taught them to cultivate the ground, to rear tame animals, and to build houses. They brought them to live together in villages. They trained them to arts and manufactures. They made them taste the sweets of society, and accustomed them to the blessings of security and order. These people became the subjects of their benefactors, who have governed them with a tender attention, resembling that with which a father directs his children. Respected and beloved almost to adoration, a few Jesuits presided over some hundred thousand Indians. They maintained a perfect equality among all the members of the community. Each of them was obliged to labour, not for himself alone, but for the public. The produce of their fields, together with the fruits of their industry of every species, were deposited in common storehouses, from which each individual received every thing necessary for the supply of his wants. By this institution, almost all the passions which disturb the peace of society, and render the members of it unhappy, were extinguished. A few magistrates, chosen by the Indians themselves, watched over the public tranquillity, and secured obedience to the laws. The sanguinary punishments frequent under other governments were unknown. An admonition

10 Settlement in Paraguay.

Jesuits. admonition from a Jesuit, a slight mark of infamy, or, on some singular occasion, a few lashes with a whip, were sufficient to maintain good order among these innocent and happy people.

But even in this meritorious effort of the Jesuits for the good of mankind, the genius and spirit of their order have mingled and are discernible. They plainly aimed at establishing in Paraguay an independent empire, subject to the society alone, and which, by the superior excellence of its constitution and police, could scarcely have failed to extend its dominion over all the southern continent of America. With this view, in order to prevent the Spaniards or Portuguese in the adjacent settlements from acquiring any dangerous influence over the people within the limits of the province subject to the society, the Jesuits endeavoured to inspire the Indians with hatred and contempt of these nations. They cut off all intercourse between their subjects and the Spanish or Portuguese settlements. They prohibited any private trader of either nation from entering their territories. When they were obliged to admit any person in a public character from the neighbouring governments, they did not permit him to have any conversation with their subjects; and no Indian was allowed even to enter the house where these strangers resided unless in the presence of a Jesuit. In order to render any communication between them as difficult as possible, they industriously avoided giving the Indians any knowledge of the Spanish or of any other European language; but encooraged the different tribes which they had civilized to acquire a certain dialect of the Indian tongue, and laboured to make that the universal language throughout their dominions. As all these precautions, without military force, would have been insufficient to have rendered their empire secure and permanent, they instructed their subjects in the European arts of war. They formed them into bodies of cavalry and infantry, completely armed and regularly disciplined. They provided a great train of artillery, as well as magazines stored with all the implements of war. Thus they established an army so numerous and well-appointed, as to be formidable in a country where a few sickly and ill-disciplined battalions composed all the military force kept on foot by the Spaniards or Portuguese.

11 Downfal of the order in Europe.

Such were the laws, the policy, and the genius of this formidable order; of which, however, a perfect knowledge has only been attainable of late. Europe had observed, for two centuries, the ambition and power of the order. But while it felt many fatal effects of these, it could not fully discern the causes to which they were to be imputed. It was unacquainted with many of the singular regulations in the political constitution or government of the Jesuits, which formed the enterprising spirit of intrigue that distinguished its members, and elevated the body itself to such a height of power. It was a fundamental maxim with the Jesuits, from their first institution, not to publish the rules of their order. These they kept concealed as an impenetrable mystery. They never communicated them to strangers, nor even to the greater part of their own members. They refused to produce them when required by courts of justice; and, by a strange solecism in policy, the civil power in different countries authorized or connived at the establishment of an order of men, whose constitution and laws were concealed with a solicitude which alone was a good reason for having excluded them. During the prosecutions lately carried on against them in Portugal and France, the Jesuits have been so inconsiderate as to produce the mysterious volumes of their institute. By the aid of these authentic records, the principles of their government may be delineated, and the sources of their power investigated, with a degree of certainty and precision, which, previous to that event, it was impossible to attain.

Jesuits of Jesus Christ.

The pernicious effects, however, of the spirit and constitution of this order, reudered it early obnoxious to some of the principal powers in Europe, and gradually brought on its downfal. The emperor Charles V. saw it expedient to check its progres in his dominions; it was expelled England, by proclamation of James I. in 1604; Venice, in 1606; Portugal, in 1759; France, in 1764; Spain and Sicily, in 1767; and totally suppressed and abolished by Pope Clement XIV. in 1773.

JESUITS BARK. See CINCHONA, BOTANY *Index*; and for its history and properties, see CINCHONA and MATERIA MEDICA *Index*.

JESUS, *the Son of* SIRACH, a native of Jerusalem, composed about 200 B. C. the Book of Ecclesiasticus, called by the Greeks Πανάρετος, "replenished with virtue;" who also quote it under the title of *the Wisdom of Jesus the son of Sirah*. His grandson, who was also of the same name, and a native of Jerusalem, translated it from the Hebrew into Greek about 121 B. C. We have the Greek version, but the Hebrew text is lost.

JESUS CHRIST, the Son of God, and Saviour of mankind, descended from heaven, and took upon him the human nature in Judæa, towards the conclusion of the reign of Herod the Great, king of that country. The place of his birth was Bethlehem, a flourishing city of Judah; but the year in which he was born is not properly ascertained. The most general opinion is that it happened about the year of Rome 748 or 749, and about 18 months before the death of Herod. Four inspired writers have transmitted to us an account of the life of Jesus Christ. They mention particularly his birth, lioeage, family, and parents; but say very little concerning his infancy and earlier youth. Herod being informed that the Messiah, or king of the Jews, so much spoken of by the prophets, was now born, being afraid that his kingdom should now be taken away, contrived how to destroy his supposed rival: but Christ, being carried, while very young, into Egypt, escaped the cruelty of the tyrant; who, being determined to make sure work, made a general massacre of the infants about Bethlehem, from the age of two years and under.

After the death of Herod, our Saviour was brought back to Judea; but we are totally ignorant of what his employment was during the interval between his return thither and the time of his entering upon the ministry. We know only, that when he was but 12 years of age, he disputed in the temple with the most learned of the Jewish doctors; whom he surprised with his knowledge, and the answers he gave to their questions. After this, as the scripture tells us, he

continued

Jesus Christ.

continued with his parents, and was subject to them, till he entered upon his ministry. It is said, indeed, though upon no sure foundation, that during this period he followed the trade of his father, who was a carpenter. In the 30th year of his age, he began his public ministry; to which the attention of the people was drawn by the preaching of John, a prophet miraculously inspired of God to proclaim the existence of the Saviour, as now descended upon earth, and visible to the eyes of all; and by this prophet Christ himself was baptized in the waters of Jordan, that he might not, in any point, neglect to answer the demands of the Jewish law.

It is not necessary here to enter into a particular detail of the life and actions of Jesus Christ. Every one knows, that his life was one continued scene of the most perfect sanctity, and the purest and most active virtue; not only without spot, but also beyond the reach of suspicion. And it is also well known, that by miracles of the most stupendous kind, and not more stupendous than salutary and beneficent, he displayed to the universe the truth of that religion which he brought with him from above, and demonstrated the reality of his divine commission in the most illustrious manner. For the propagation of his religion through the country of Judæa, our Saviour chose 12 apostles; whom, however, he sent out only once, and after their return kept them constantly about his person. But, besides these, he chose other 70, whom he dispersed throughout the country.

There have been many conjectures concerning the reason why the number of apostles was fixed at 12, and that of the other teachers at 70. The first, however, was, according to our Saviour's own words (Matt. xix. 28.), an allusion to the 12 tribes of Israel, thereby intimating that he was the king of these 12 tribes; and as the number of his other messengers answers evidently to that of the senators who composed the Sanhedrim, there is a high degree of probability in the conjectures of those who think that Christ by this number designed to admonish the Jews, that the authority of their Sanhedrim was now at an end, and that all power with respect to religious matters was vested in him alone. His ministry, however, was confined to the Jews; nor, while he remained upon earth, did he permit his apostles or disciples to extend their labours beyond this favoured nation. At the same time, if we consider the illustrious acts of mercy and benevolence that were performed by Christ, it will be natural to conclude, that his fame must soon have spread abroad in other countries. Indeed this seems probable from a passage in scripture, where we are told that some Greeks applied to the apostle Philip in order to see Jesus. We learn also from authors of no small note, than Abgarus * king of Edessa, being seized with a severe and dangerous illness, wrote to our Lord, imploring his assistance; and that Jesus not only sent him a gracious answer, but also accompanied it with his picture, as a mark of his esteem for that pious prince. These letters are still extant; but by the judicious part of mankind are universally looked upon as spurious; and indeed the late Mr Jones, in his treatise entitled *A new and full method of settling the canonical authority of the New Testament*, hath offered reasons which seem almost unanswerable against the authenticity of the whole transaction.

* See *Abgarus.*

Jesus Christ, Jet.

The preaching of our Saviour, and the numberless miracles he performed, made such an impression on the body of the Jewish nation, that the chief priests and leading men, jealous of his authority, and provoked with his reproaching them with their wicked lives, formed a conspiracy against him. For a considerable time their designs proved abortive; but at last Jesus, knowing that he had fulfilled every purpose for which he came into the world, suffered himself to be taken through the treachery of one of his disciples, named *Judas Iscariot*, and was brought before the Sanhedrim. In this assembly he was accused of blasphemy; and being afterwards brought before Pilate the Roman governor, where he was accused of sedition, Pilate was no sooner set down to judge in this cause, than he received a message from his wife, desiring him to have nothing to do with the affair, having that very day had a frightful dream on account of our Saviour, whom she called *that just man*. The governor, intimidated by this message, and still more by the majesty of our Saviour himself, and the evident falsehood of the accusations brought against him, was determined if possible to save him. But the clamours of an enraged populace, who at last threatened to accuse Pilate himself as a traitor to the Roman emperor, got the better of his love of justice, which indeed on other occasions was not very fervent.

Our Saviour was now condemned by his judge, through contrary to the plainest dictates of reason and justice; was executed on a cross between two thieves, and very soon expired. Having continued three days in a state of death, he rose from the dead, and made himself visible to his disciples as formerly. He conversed with them 40 days after his resurrection, and employed himself during that time in instructing them more fully concerning the nature of his kingdom; and having manifested the certainty of his resurrection to as many witnesses as he thought proper, he was, in the presence of many of his disciples, taken up into heaven, there to remain till the end of the world. See CHRISTIANITY.

JET, a black inflammable substance of the bituminous kind, harder than asphaltum, and susceptible of a good polish. It becomes electrical by rubbing, attracting light bodies like yellow amber. It swims on water, so that its specific gravity must be less than 1000; notwithstanding which it has been frequently confounded with the *lapis obsidianus*, the specific gravity of which, according to Kirwan, is no less than 1744. It also resembles cannel-coal extremely in its hardness, receiving a polish, not soiling the fingers, &c. so that it has also been confounded with this. The distinction, however, is easily made betwixt the two; for cannel-coal wants the electrical properties of jet, and is likewise so heavy as to sink in water; its specific gravity being no less than 1273; whereas that of jet, as has already been said, is less than 1000.

M. Magellan is of opinion that jet is a true amber, differing from the yellow kind only in the mere circumstance of colour, and being lighter on account of the great quantity of bituminous matter which enters into its composition. When burning it emits

Jet || Jewel.

a bituminous smell. It is never found in strata or continued masses like fossil stones; but always in separate and unconnected heaps like the true amber. Great quantities of it have been dug up in the Pyrenæan mountains; also near *Batalka*, a small town of Portugal; and in Gallicia in Spain. It is found also in Ireland, Sweden, Prussia, Germany, and Italy. It is used in making small boxes, buttons, bracelets, mourning jewels, &c. Sometimes also it is employed in conjunction with proper oils in making varnishes. When mixed with lime in powder, it is said to make very hard and durable cement.

Jet d'Eau, a French term, frequently also used with us, for a fountain that casts up water to a considerable height in the air.

JETTE, the border made round the stilts under a pier, in certain old bridges, being the same with starling; consisting of a strong framing of timber filled with stones, chalk, &c. to preserve the foundations of the piers from injury.

JETTY-HEAD, a name usually given in the royal dock-yards to that part of a wharf which projects beyond the rest; but more particularly the front of a wharf, whose side forms one of the cheeks of a dry or wet dock.

JEWEL, any precious stone, or ornament beset with them. See DIAMOND, RUBY, &c.

JEWELS made a part of the ornaments with which the Jews, Greeks, and Romans, especially their ladies of distinction, adorned themselves. So prodigious was the extravagance of the Roman ladies, in particular, that Pliny the elder says he saw Lollio Paulina with an equipage of this kind amounting, according to Dr Arbuthnot's calculation, to 322,916l. 13s. 4d. of our money. It is worthy of observation, that precious stones among the Romans and all the ancients were much scarcer, and consequently in higher esteem, than they are amongst us, since a commerce has been opened with the Indies.—The ancients did not know how to cut and polish them to much perfection; but coloured stones were not scarce, and they cut them very well either hollow or in relief.—When luxury had gained ground amongst them, the Romans hung pendants and pearls in their ears; and for this purpose the ears of both sexes were frequently bored. See EARS.

JEWEL, *John*, a learned English writer and bishop, was born in 1522, and educated at Oxford. In 1540 he proceeded A. B. became a noted tutor, and was soon after chosen rhetoric lecturer in his college. In February 1544, he commenced A. M. He had early imbibed Protestant principles, and inculcated the same to his pupils; but this was carried on privately till the accession of King Edward VI. in 1546, when he made a public declaration of his faith, and entered into a close friendship with Peter Martyr, who was made professor of divinity at Oxford. In 1550, he took the degree of B. D. and frequently preached before the university with great applause. At the same time he preached and catechised every other Sunday at Sunningwell in Berkshire, of which church he was rector. Upon the accession of Queen Mary to the crown, in 1553, he was one of the first who felt the rage of the storm then raised against the reformation; for before any law was made, or order given by the queen, he was expelled Corpus Christi college by the fellows, by their own private authority; but he continued in Oxford till he was called upon to subscribe to some of the Popish doctrines, under the severest penalties, which he submitted to. However, this did not procure his safety; for he was obliged to fly, and after encountering many difficulties, arrived at Frankfort, in the 2d year of Queen Mary's reign, where he made a public recantation of his subscription to the Popish doctrines. Thence he went to Strasburg, and afterwards to Zurich, where he attended Peter Martyr, in whose house he resided. He returned to England in 1558, after Queen Mary's death; and in 1559, was consecrated bishop of Salisbury. This promotion was given him as a reward for his great merit and learning; and another attestation of these was given him by the university of Oxford, who, in 1565, conferred on him in his absence the degree of D. D. In this character he attended the queen to Oxford the following year, and presided at the divinity disputations held before her majesty on that occasion. He had before greatly distinguished himself by a sermon preached at St Paul's cross, presently after he was made a bishop, wherein he gave a public challenge to all the Roman Catholics in the world, to produce but one clear and evident testimony out of any father or famous writer, who flourished within 600 years after Christ, for any one of the articles which the Romanists maintain against the church of England; and two years afterwards, he published his famous apology for this church. In the mean time, he gave a particular attention to his diocese; where he began in his first visitation, and perfected in his last, such a reformation, not only in his cathedral and parochial churches, but in all the churches of his jurisdiction, as procured him and the whole order of bishops due reverence and esteem. For he was a careful overlooker and strict observer, not only of all the flocks, but also of the pastors, in his diocese: and he watched so narrowly upon the proceedings of his chancellor and archdeacons, and of his stewards and receivers, that they had no opportunities of being guilty of oppression, injustice, or extortion, nor of being a burden to the people, or a scandal to himself. To prevent these and the like abuses, for which the ecclesiastical courts are often too justly censured, he sat often in his consistory-court, and saw that all things were carried rightly there: he also sat often as assistant on the bench of civil justice, being himself a justice of the peace. Amidst these employments, however, the care of his health was too much neglected; to which, indeed, his general course of life was totally unfavourable. He rose at four o'clock in the morning; and, after prayers with his family at five, and in the cathedral about six, he was so fixed to his studies all the morning, that he could not without great violence be drawn from them: After dinner, his doors and ears were open to all suitors; and it was observed of him, as of Titus, that he never sent any sad from him. Suitors being thus dismissed, he heard, with great impartiality and patience, such causes debated before him, as either devolved to him as a judge, or were referred to him as an arbitrator; and if he could spare any time from these, he reckoned it as clear gain to his study. About nine at night he called all his servants to an account how they had spent the day, and he went to prayers with them. From

Jewel.

Jewel, Jews.

the chapel he withdrew again to his study till near midnight, and from thence to his bed; in which, when he was laid, the gentleman of his bed-chamber read to him till he fell asleep. This watchful and laborious life, without any recreation at all, except what his necessary refreshment at meals and a very few hours of rest afforded him, wasted his life too fast. He died at Monkton-Farley, in 1571, in the 50th year of his age. He wrote, 1. A view of a seditious bull sent into England by Pope Pius V. in 1569. 2. A treatise on the Holy Scriptures. 3. An exposition of St Paul's two epistles to the Thessalonians. 4. A treatise on the sacrament. 5. An apology for the national church. 6. Several sermons, controversial treatises, and other works.

"This excellent prelate (says the Rev. Mr Granger) was one of the greatest champions of the reformed religion, as he was to the church of England what Bellarmine was to that of Rome. His admirable Apology was translated from the Latin by Anne, the second of the four learned daughters of Sir Anthony Coke, and mother of Sir Francis Bacon. It was published, as it came from her pen, in 1564, with the approbation of the queen and the prelates. The same Apology was printed in Greek at Constantinople, under the direction of St Cyril the patriarch. His Defence of his Apology, against Harding and other Popish divines, was in such esteem, that Queen Elizabeth, King James I. King Charles I. and four successive archbishops, ordered it to be kept chained in all parish-churches for public use.

Jewel Blocks, in the sea language, a name given to two small blocks which are suspended at the extremity of the main and fore top-sail yards, by means of an eye-bolt driven from without into the middle of the yard-arm, parallel to its axis. The use of these blocks is, to retain the upper part of the top-mast studding-sails beyond the skirts of the top-sails, so that each of those sails may have its full force of action, which would be diminished by the encroachment of the other over its surface. The *haliards*, by which those studding-sails are hoisted, are accordingly passed through the jewel-blocks; whence, communicating with a block on the top-mast head, they lead downwards to the top or decks, where they may be conveniently hoisted. See Sail.

JEWS, a name derived from the patriarch Judah, and given to the descendants of Abraham by his eldest son Isaac, who for a long time possessed the land of Palestine in Asia, and are now dispersed through all nations in the world.

The history of this people, as it is the most singular, so is it also the most ancient in the world; and the greatest part being before the beginning of profane history, depends entirely on the authenticity of the Old Testament, where it is only to be found.—To repeat here what is said in the sacred writings would both be superfluous and tedious, as those writings are in every person's hands, and may be consulted at pleasure. It seems most proper therefore to commence the history of the Jews from their return to Jerusalem from Babylon, and the rebuilding of their city and temple under Ezra and Nehemiah, when the scripture leaves off any farther accounts, and profane historians begin to take notice of them. We shall, however, premise a chronological list of their judges and kings down to the captivity. Jews.

The Israelites had no king of their nation till Saul. Before him, they were governed, at first by elders, as in Egypt; then by princes of God's appointment, as Moses and Joshua; then by judges, such as Othniel, Ehud, Shamgar, Gideon, Jephthah, Samson, Eli, Samuel; and last of all by kings, as Saul, David, Solomon, Rehoboam, &c.

A List of the Judges of Israel in a Chronological Order. The Numbers prefixed denote the Years of the World.

2570. The death of Joshua.
2585. The government of the elders for about 15 years.
2592. An anarchy of about 7 years. The history of Micah, the conquest of the city of Laish by part of the tribe of Dan, and the war undertaken by the 11 tribes against Benjamin, are all referred to this time.
2591. The first servitude under Cushan-rishathaim king of Mesopotamia began in 2591, and lasted eight years to 2599.
2599. Othniel delivered Israel in the 40th year after peace established in the land by Joshua.
2662. A peace of about 62 years, from the deliverance procured by Othniel, in 2599, to 2662, when the second servitude under Eglon king of the Moabites happened. It lasted 18 years.
2679. Ehud delivers Israel.
After him Shamgar governed, and the land was in peace till the 80th year after the first deliverance procured by Othniel.
2699. The third servitude under the Canaanites, which lasted 20 years, from 2699 to 2719.
2719. Deborah and Barak deliver the Israelites: from the deliverance procured by Ehud to the end of Deborah and Barak's government, were 40 years.
2768. Abimelech the natural son of Gideon is acknowledged king by the Shechemites.
2771. He died at the siege of Thebez in Palestine.
2772. Tola after Abimelech governs for 23 years, from 2772 to 2795.
2795. Jair succeeds Tola, and governs 22 years, from 2795 to 2816.
2799. The fifth servitude under the Philistines, which lasted 18 years, from 2799 to 2817.
2817. The death of Jair.
2817. Jephthah is chosen head of the Israelites beyond Jordan; he defeated the Ammonites, who oppressed them. Jephthah governed six years, from 2817 to 2823.
2823. The death of Jephthah.
2830. Ibzan governs seven years, from 2823 to 2830.
2840. Elon succeeds Ibzan. He governs from 2830 to 2840.
Abdon judges Israel eight years, from 2840 to 2848.
2848. The sixth servitude, under the Philistines, which lasted 40 years, from 2848 to 2888.
2848. Eli the high-priest, of the race of Ithamar, governed 40 years, the whole time of the servitude under the Philistines.
2849. The birth of Samson.

Jews. 2887. The death of Samson, who was judge of Israel during the judicature of Eli the high-priest.
2888. The death of Eli, and the beginning of Samuel's government, who succeeded him.
2909. The election and anointing of Saul, first king of the Hebrews.

A Chronological List of the Kings of the Hebrews.

SAUL, the first king of the Israelites, reigned 40 years, from the year of the world 2909 to 2949.

Ishbosheth the son of Saul succeeded him, and reigned six or seven years over part of Israel, from 2949 to 2956.

David was anointed king by Samuel in the year of the world 2934; but did not enjoy the regal power till the death of Saul in 2949, and was not acknowledged king of all Israel till after the death of Ishbosheth in 2956. He died in 2990 at the age of 70.

Solomon his son succeeded him; he received the royal unction in the year 2989. He reigned alone after the death of David in 2990. He died in 3029, after a reign of 40 years.

After his death the kingdom was divided; and the ten tribes having chosen Jeroboam for their king, Rehoboam, the son of Solomon, reigned only over the tribes of Judah and Benjamin.

The Kings of Judah.

Rehoboam, the son and successor of Solomon, reigned 17 years; from the year 3029 to 3046.

Abijam, three years, from 3046 to 3049.

Asa, 41 years, from 3049 to 3090.

Jehoshaphat, 25 years, from 3090 to 3115.

Jehoram, four years, from 3115 to 3119.

Ahaziah, one year, from 3119 to 3120.

Athaliah, his mother, reigned six years, from 3120 to 3126.

Joash was set upon the throne by Jehoiada the high-priest, in 3126. He reigned 40 years, to the year 3165.

Amaziah, 29 years, from 3165 to 3194.

Uzziah, otherwise called *Azariah*, reigned 27 years, to the year 3221. Then attempting to offer incense in the temple, he was struck with a leprosy, and obliged to quit the government. He lived after this 26 years, and died in 3246.

Jotham his son took upon him the government in the year of the world 3221. He reigned alone in 3246, and died in 3262.

Ahaz succeeded Jotham in the year of the world 3262. He reigned 16 years, to 3278.

Hezekiah, 28 years, from 3278 to 3306.

Manasseh, 55 years, from the year of the world 3306 to 3361.

Amon 2 years, from 3361 to 3363.

Josiah, 31 years, from 3363 to 3394.

Jehoahaz, three months.

Eliakim, or Jehoiakim, 11 years, from the year 3394 to 3405.

Jehoiachin, or Jechoniah, reigned three months and ten days, in the year 3405.

Mattaniah, or Zedekiah, reigned 11 years, from 3405 to 3416. In the last year of his reign Jerusalem was taken, the temple burnt, and Judah carried into captivity beyond the Euphrates.

Kings of Israel.

Jeroboam reigned 22 years, from 3029 to 3051.

Nadab, one year. He died in 3051.

Baasha, 22 years, from 3052 to 3074. Jews.

Elah, two years. He died in 3075.

Zimri, seven days.

Omri, 11 years, from 3075 to 3086. He had a competitor Tibni, who succeeded, and died in what year we know not.

Ahab, 21 years, from 3086 to 3107.

Ahaziah, two years, from 3106 to 3108.

Jehoram, the son of Ahab, succeeded him in 3108, He reigned 12 years, and died in 3120.

Jehu usurped the kingdom in 3120, reigned 28 years, and died in 3148.

Jehoahaz reigned 17 years, from 3148 to 3165.

Joash reigned 14 years, from 3165 to 3179.

Jeroboam II. reigned 41 years, from 3179 to 3220.

Zachariah, 12 years, from 3220 to 3232.

Shallum reigned a month. He was killed in 3233.

Menahem, 10 years, from 3233 to 3243.

Pekahiah, two years, from 3243 to 3245.

Pekah 20 years, from 3245 to 3265.

Hoshea, 18 years, from 3265 to 3283. Here the kingdom of Israel had an end after a duration of 253 years.

1 Cyrus publishes a decree for rebuilding Jerusalem.

Cyrus the Great, king of Persia, having conquered Babylon and almost all the western parts of Asia, perceiving the desolate and ruinous condition in which the province of Palestine lay, formed a design of restoring the Jews to their native country, and permitting them to rebuild Jerusalem and re-establish their worship. For this purpose he issued out a decree in the first year of his reign, about 536 B. C. by which they were allowed not only to return and rebuild their city, but to carry along with them all the sacred vessels which Nebuchadnezzar had carried off, and engaged to defray the expence of building the temple himself. This offer was gladly embraced by the more zealous Jews of the tribes of Judah, Benjamin, and Levi; but many more, being no doubt less sanguine about their religion, chose to stay where they were.

In 534. B. C. the foundations of the temple were laid, and matters seemed to go on prosperously, when the undertaking was suddenly obstructed by the Samaritans. These came at first, expressing an earnest desire to assist in the work, as they worshipped the same God with the Jews: but the latter refused their assistance, as they knew they were not true Israelites, but the descendants of those heathens who had been transplanted into the country of the ten tribes after their captivity by Shalmanezer. This refusal proved the source of all that bitter enmity which afterwards took place between the Jews and Samaritans; and the immediate consequence was, that the latter made all the opposition in their power to the going on of the work. At last, however, all obstacles were surmounted, and the temple finished as related in the books of Ezra and Nehemiah. The last of these chiefs died about 409 B. C. after having restored the Jewish worship to its original purity, and reformed a number of abuses which took place immediately on its commencement.

2 The temple finished.

But though the Jews were now restored to the free exercise of religion, they were neither a free nor a powerful people as they had formerly been. They were few in number, and their country only a province of Syria, subject to the kings of Persia. The

Jews.

Syrian governors conferred the administration of affairs upon the high-priests; and their accepting this office, and thus deviating from the law of Moses, must be considered as one of the chief causes of the misfortunes which immediately befel the people, because it made room for a set of men, who aspired at this high office merely through ambition or avarice, without either zeal for religion or love for their country. It besides made the high-priesthood capable of being disposed of at the pleasure of the governors, whereas the Mosaic institution had fixed it unalienably in the family of Aaron.—Of the bad effects of this practice a fatal instance happened in 373 B. C. Bagoses, governor of Syria, having contracted an intimate friendship with Jeshua the brother of Johanan the high-priest, promised to raise him to the pontifical office a few years after his brother had been invested with it. Jeshua came immediately to Jerusalem, and acquainted his brother with it. Their interview happened in the inner court of the temple; and a scuffle ensuing, Jeshua was killed by his brother, and the temple thus polluted in the most scandalous manner. The consequence to the Jews was, that a heavy fine was laid on the temple, which was not taken off till seven years after.

3 Administration of affairs conferred on the high-priests.

The first public calamity which befel the Jewish nation after their restoration from Babylon, happened in the year 351 B. C.: for having some how or other disobliged Darius Ochus king of Persia, he besieged and took Jericho, and carried off all the inhabitants captives. From this time they continued faithful to the Persians, insomuch that they had almost drawn upon themselves the displeasure of Alexander the Great. That monarch having resolved upon the siege of Tyre, and being informed that the city was wholly supplied with provisions from Judea, Samaria, and Galilee, sent to Jaddua, then high-priest, to demand of him that supply which he had been accustomed to pay to the Persians. The Jewish pontiff excused himself on account of his oath of fidelity to Darius; which so provoked Alexander, that he had no sooner completed the reduction of Tyre than he marched against Jerusalem. The inhabitants, then, being with good reason thrown into the utmost consternation, had recourse to prayers; and Jaddua is said, by a divine revelation, to have been commanded to go and meet Alexander. He obeyed accordingly, and set out on his journey, dressed in his pontifical robes, at the head of all his priests in their proper habits, and attended by the rest of the people dressed in white garments. Alexander is said to have been seized with such awful respect on seeing this venerable procession, that he embraced the high-priest, and paid a kind of religious adoration to the name of God engraven on the front of his mitre. His followers being surprised at this unexpected behaviour, the Macedonian monarch informed them, that he paid that respect not to the priest, but to his God, as an acknowledgment for a vision which he had been favoured with at Dia; where he had been promised the conquest of Persia, and encouraged in his expedition, by a person of much the same aspect and dressed in the same habit with the pontiff before him. He afterwards accompanied Jaddua into Jerusalem, where he offered sacrifices in the temple. The high priest showed him also the prophecies of Daniel, wherein the destruction of the Persian empire by himself is plainly set forth; in consequence of which the king went away highly satisfied, and at his departure asked the high-priest if there was nothing in which he could gratify himself or his people? Jaddua then told him, that, according to the Mosaic law, they neither sowed nor ploughed on the seventh year; therefore would esteem it a high favour if the king would be pleased to remit their tribute in that year. To this request the king readily yielded; and having confirmed them in the enjoyment of all their privileges, particularly that of living under their own laws, he departed.

4 Interview of the high-priest with Alexander the Great.

Jews.

Whether this story deserves credit or not (for the whole transaction is not without reason called in question by some), it is certain that the Jews were much favoured by Alexander; but with him their good fortune seemed also to expire. The country of Judea being situated between Syria and Egypt, became subject to all the revolutions and wars which the ambitious successors of Alexander waged against each other. At first it was given, together with Syria and Phenicia, to Leomedon the Mitylenian, one of Alexander's generals; but he being soon after stripped of the other two by Ptolemy, Judea was next summoned to yield to the conqueror. The Jews scrupled to break their oath of fidelity to Leomedon; and were of consequence invaded by Ptolemy at the head of a powerful army. The open country was easily reduced; but the city being strongly fortified both by art and nature, threatened a strong resistance. A superstitious fear for breaking the sabbath, however, prevented the besieged from making any defence on that day; of which Ptolemy being informed, he caused an assault to be made on the sabbath, and easily carried the place. At first he treated them with great severity, and carried 100,000 men of them into captivity; but reflecting soon after on their known fidelity to their conquerors, he restored them to all the privileges they had enjoyed under the Macedonians. Of the captives he put some into garrisons, and others he settled in the countries of Libya and Cyrene. From those who settled in the latter of these countries descended the Cyrenean Jews mentioned by the writers of the New Testament.

5 Miserable state of the Jews after Alexander's death.

Five years after Ptolemy had subdued Judea, he was forced to yield it to Antigonus, reserving to himself only the cities of Ace, Samaria, Joppa, and Gaza; and carrying off an immense booty, together with a great number of captives, whom he settled at Alexandria, and endowed with considerable privileges and immunities.—Antigonus behaved in such a tyrannical manner, that great numbers of his Jewish subjects fled into Egypt, and others put themselves under the protection of Seleucus, who also granted them considerable privileges. Hence this nation came gradually to be spread over Syria and Asia Minor; while Judea seemed to be in danger of being depopulated till it was recovered by Ptolemy in 292. The affairs of the Jews then took a more prosperous turn, and continued in a thriving way till the reign of Ptolemy Philopater, when they were grievously oppressed by the incursions of the Samaritans, at the same time that Antiochus Theos king of Syria invaded Galilee. Ptolemy, however, marched against Antiochus, and defeated him;

Jews. him; after which, having gone to Jerusalem to offer sacrifices, he ventured to profane the temple itself by going into it. He penetrated through the two outer courts; but as he was about to enter the sanctuary, he was struck with such dread and terror that he fell down half dead. A dreadful persecution was then raised against the Jews, who had attempted to hinder him in his impious attempt; but this persecution was stopped by a still more extraordinary accident related under the article EGYPT, N° 30, and the Jews again received into favour.

6 Subdued by Antiochus the Great. About the year 204 B. C. the country of Judea was subdued by Antiochus the Great; and on this occasion the loyalty of the Jews to the Egyptians failed them, the whole nation readily submitting to the king of Syria. This attachment so pleased the Syrian monarch, that he sent a letter to his general, wherein he acquainted him that he designed to restore Jerusalem to its ancient splendour, and to recal all the Jews that had been driven out of it; that out of his singular respect to the temple of God, he granted them 20,000 pieces of silver, towards the charges of the victims, frankincense, wine, and oil; 1400 measures of fine wheat, and 375 measures of salt, towards their usual oblations: that the temple should be thoroughly repaired at his cost; that they should enjoy the free exercise of their religion; and restore the public service of the temple, and the priests, Levites, singers, &c. to their usual functions: that no stranger, or Jew that was unpurified, should enter farther into the temple than was allowed by their law; and that no flesh of unclean beasts should be brought into Jerusalem; not even their skins: and all these under the penalty of paying 3000 pieces of silver into the treasury of the temple. He further granted an exemption of taxes for three years to all the dispersed Jews that should come within a limited time to settle in the metropolis; and that all who had been sold for slaves within his dominions should be immediately set free.

7 Dreadful commotions. This sudden prosperity proved of no long duration. About the year 176, a quarrel happened between Onias, at that time high-priest, and one Simon, governor of the temple, which was attended with the most fatal consequences. The causes of this quarrel are unknown. The event, however, was, that Simon finding he could not get the better of Onias, informed Apollonius governor of Cœlosyria and Palestine, that there was at that time in the temple an immense treasure, which at his pleasure might be seized upon for the use of the king of Syria. Of this the governor instantly sent intelligence to the king, who dispatched one Heliodorus to take possession of the supposed treasure. This person, through a miraculous interposition, as the Jews pretend, failed in his attempt of entering the temple; upon which Simon accused the high-priest to the people, as the person who had invited Heliodorus to Jerusalem. This produced a kind of civil war, in which many fell on both sides. At last Onias having complained to the king, Simon was banished; but soon after, Antiochus Epiphanes having ascended the throne of Syria, Jason, the high-priest's brother, taking advantage of the necessities of Antiochus, purchased from him the high priesthood at the price of 350 talents, and obtained an order that his brother should be sent to Antioch, there to be confined for life.

Jason's next step was to purchase liberty, at the price of 150 talents more, to build a gymnasium at Jerusalem, similar to those which were used in the Grecian cities, and to make as many Jews as he pleased free citizens of Antioch. By means of these powers, he became very soon able to form a strong party in Judea; for his countrymen were exceedingly fond of the Grecian customs, and the freedom of the city of Antioch was a very valuable privilege. From this time there- 8 A general apostasy takes place. fore a general apostasy took place; the service of the temple was neglected, and Jason abandoned himself without remorse to all the impieties and absurdities of Paganism.

He did not, however, long enjoy his ill-acquired dignity. Having sent his brother Menelaus with the usual tribute to Antiochus, the former took the opportunity of supplanting Jason in the same manner that he had supplanted Onias. Having offered for the high-priesthood 300 talents more than his brother had given, he easily obtained it, and returned with his new commission to Jerusalem. He soon got himself a strong party: but Jason proving too powerful, forced Menelaus and his adherents to retire to Antioch. Here, the better to gain their point, they acquainted Antiochus that they were determined to renounce their old religion, and wholly conform themselves to that of the Greeks: which so pleased the tyrant, that he immediately gave them a force sufficient to drive Jason out of Jerusalem; who thereupon took refuge among the Ammonites.

Menelaus being thus freed from his rival, took care to fulfil his promise to the king with regard to the apostasy, but forgot to pay the money he had promised. At last he was summoned to Antioch; and finding nothing but the payment of the promised sum would do, sent orders to his brother Lysimachus to convey to him as many of the sacred utensils belonging to the temple as could be spared. As these were all of gold, the apostate soon raised a sufficient sum from them not only to satisfy the king, but also to bribe the courtiers in his favour. But his brother Onias, who had been all this time confined at Antioch, getting intelligence of the sacrilege, made such bitter complaints, that an insurrection was ready to take place among the Jews at Antioch. Menelaus, in order to avoid the impending danger, bribed Andronicus, governor of the city, to murder Onias. This produced the most vehement complaints as soon as Antiochus returned to the capital (he having been absent for some time in order to quell an insurrection in Cilicia; which at last ended in the death of Andronicus, who was executed by the king's order. By dint of money, however, Menelaus still found means to keep up his credit; but was obliged to draw such large sums from Jerusalem, that the inhabitants at last massacred his brother Lysimachus, whom he had left governor of the city in his absence. Antiochus soon after took a journey to Tyre; upon which the Jews sent deputies to him, both to justify the death of Lysimachus, and to accuse Menelaus of being the author of all the troubles which had happened. The apostate, however, was never at a loss while he could procure money. By means of this powerful argument, he pleaded his cause so effectually, that the deputies were not only cast, but put to death; and this unjust sentence gave the traitor such a complete victory

over

Jews.

over all his enemies, that from thenceforth he commenced a downright tyrant. Jerusalem was destitute of protectors; and the sanhedrim, if there were any zealous men left among them, were so much terrified, that they durst not oppose him, though they evidently saw that his design was finally to eradicate the religion and liberties of his country.

In the mean time, Antiochus was taken up with the conquest of Egypt, and a report was somehow or other spread that he had been killed at the siege of Alexandria. At this news the Jews imprudently showed some signs of joy; and Jason thinking this a proper opportunity to regain his lost dignity, appeared before Jerusalem at the head of about 1000 resolute men. The gates were quickly opened to him by some of his friends in the city; upon which Menelaus retired into the citadel, and Jason, minding nothing but his resentment, committed the most horrid butcheries. At last he was obliged to leave both the city and country, on the news that Antiochus was coming with a powerful army against him; for that prince, highly provoked at this rebellion, and especially at the rejoicings the Jews had made on the report of his death, had actually resolved to punish the city in the severest manner.

9 Jerusalem taken by Antiochus Epiphanes.

Accordingly, about 170 B. C. having made himself master of the city, he behaved with such cruelty, that within three days they reckoned no fewer than 40,000 killed, and as many sold for slaves. In the midst of this dreadful calamity, the apostate Menelaus found means not only to preserve himself from the general slaughter, but even to regain the good graces of the king, who having by his means plundered the temple of every thing valuable, returned to Antioch in a kind of triumph. Before he departed, however, he put Judea under the government of one Philip, a barbarous Phrygian; Samaria under that of Andronicus, a person of a similar disposition; and left Menelaus, the most hateful of all the three, in possession of the high-priesthood.

10 His monstrous cruelty.

Though the Jews suffered exceedingly under these tyrannical governors, they were still reserved for greater calamities. Abont 168 B. C. Antiochus having been most severely mortified by the Romans, took it into his head to wreak his vengeance on the unhappy Jews. For this purpose he dispatched Apollonius at the head of 22,000 men, with orders to plunder all the cities of Judea, to murder all the men, and sell the women and children for slaves. Apollonius accordingly came with his army, and to outward appearance with a peaceable intention; neither was he suspected by the Jews, as he was superintendant of the tribute in Palestine. He kept himself inactive till the next sabbath, when they were all in a profonnd quiet; and then, on a sudden, commanded his men to arms. Some of them he sent to the temple and synagogues, with orders to cut in pieces all whom they fonnd there; whilst the rest going through the streets of the city massacred all that came in their way; the superstitious Jews not attempting to make the least resistance for fear of breaking the sabbath. He next ordered the city to be plun-

11 The temple profaned and the Jewish religion abolished,

dered and set on fire, pulled down all their stately buildings, caused the walls to be demolished, and carried away captive about 10,000 of those who had escaped the slaughter. From that time the service of the temple was totally abandoned; that place having been quite polluted, both with the blood of multitudes who had been killed, and in various other ways. The Syrian troops built a large fortress on an eminence in the city of David; fortified it with a strong wall and stately towers, and put a garrison in it to command the temple, over against which it was built, so that the soldiers could easily see and sally out upon all those who attempted to come into the temple; so many of whom were continually plundered and murdered by them, that the rest, not daring to stay any longer in Jerusalem, fled for refuge to the neighbouring nations.

Jews.

Antiochus, not yet satiated with the blood of the Jews, resolved either totally to abolish their religion, or destroy their whole race. He therefore issued out a decree that all nations within his dominions should forsake their old religion and gods, and worship those of the king under the most severe penalties. To make his orders more effectual, he sent overseers into every province to see them strictly put in execution; and as he knew the Jews were the only people who would disobey them, special directions were given to have them treated with the utmost severity. Atheneas, an old and cruel minister, well versed in all the pagan rites, was sent into Judea. He began by dedicating the temple to Jupiter Olympius, and setting up his statue on the altar of burnt-offerings. Another lesser altar was raised before it, on which they offered sacrifices to that false deity. All who refused to come and worship this idol were either massacred or put to some cruel tortures till they either complied or expired under the hands of the executioners. At the same time, altars, groves, and statues, were raised everywhere through the country, and the inhabitants compelled to worship them under the same severe penalties; while it was instant death to observe the sabbath, circumcision, or any other institution of Moses.

12 Restored by Mattathias.

At last, when vast numbers had been put to cruel deaths, and many more had saved their lives by their apostasy, an eminent priest, named *Mattathias*, began to signalize himself by his bravery and zeal for religion. He had for some time been obliged to retire to Modin his native place, in order to avoid the persecution which raged at Jerusalem. During his recess there, Apelles, one of the king's officers, came to oblige the inhabitants to comply with the above-mentioned orders. By him Mattathias and his sons were addressed in the most earnest manner, and had the most ample promises made them of the king's favour and protection, if they would renounce their religion. But Mattathias answered, that though the whole Jewish nation, and the whole world, were to conform to the king's edict, yet both he and his sons would continue faithful to their God to the last minute of their lives. At the same time perceiving one of his countrymen just going to offer sacrifices to an idol, he fell upon him and instantly killed him, agreeable to the law of Moses in such cases. Upon this his sons, fired with the same zeal, killed the officer and his men; overthrew the altar and idol; and running about the city, cried out, that those who were zealous for the law of God should follow them; by which means they quickly saw themselves at the head of a numerous troop, with whom they soon after withdrew into some of the deserts of Judea. They were followed by many others, so that in a short time they found themselves in a condition to resist their enemies;

and

Jews. and having considered the danger to which they were exposed by their scrupulous observance of the sabbath, they resolved to defend themselves, in case of an attack, upon that day as well as upon any other.

In the year 167 B. C. Mattathias finding that his followers daily increased in number, began to try his strength by attacking the Syrians and apostate Jews. As many of these as he took he put to death, but forced a much greater number to fly for refuge into foreign countries; and having soon struck his enemies with terror, he marched from city to city, overturned the idolatrous altars, opened the Jewish synagogues, made a diligent search after all the sacred books, and caused fresh copies of them to be written; he also caused the reading of the Scriptures to be resumed, and all the males born since the persecution to be circumcised. In all this he was attended with such success, that he had extended his reformation through a considerable part of Judea within the space of one year: and would probably have completed it, had he not been prevented by death.

13 Exploits of Judas Maccabeus, Mattathias was succeeded by his son Judas, surnamed *Maccabeus*, the greatest uninspired hero of whom the Jews can boast. His troops amounted to no more than 6000 men; yet with these he quickly made himself master of some of the strongest fortresses of Judea, and became terrible to the Syrians, Samaritans, and apostate Jews. In one year he defeated the Syrians in five pitched battles, and drove them quite out of the country; after which he purified the temple, and restored the true worship, which had been interrupted for three years and a half. Only one obstacle now remained, viz. the Syrian garrison above-mentioned, which had been placed over against the temple, and which Judas could not at present reduce. In order to prevent them from interrupting the worship, however, he fortified the mountain on which the temple stood, with a high wall and strong towers round about, leaving a garrison to defend it; making some additional fortifications at the same time to Bethzura, a fortress at about 20 miles distance.

14 Dreadful death of Antiochus Epiphanes. In the mean time Antiochus being on his return from an unsuccessful expedition into Persia, received the disagreeable news that the Jews had all to a man revolted, defeated his generals, driven their armies out of Judea, and restored their ancient worship. This threw him into such a fury, that he commanded his charioteer to drive with the utmost speed, threatening utterly to extirpate the Jewish race, without leaving a single person alive. These words were scarce uttered, when he was seized with a violent pain in his bowels, which no remedy could cure or abate. But notwithstanding this violent shock, suffering himself to be hurried away by the transports of his fury, he gave orders for proceeding with the same precipitation in his journey. But while he was thus hastening forward, he fell from his chariot, and was so bruised by the fall, that his attendants were forced to put him into a litter. Not being able to bear even the motion of the litter, he was forced to halt at a town called *Tabæ* on the confines of Persia and Babylonia. Here he kept his bed, suffering inexpressible torments, occasioned chiefly by the vermin which bred in his body, and the stench, which made him insupportable even to himself. But the torments of his mind, caused by his reflecting on the former actions of his life, surpassed by many degrees those of his body. Polybius, who in his account of this prince's death agrees with the Jewish historians, tells us, that the uneasiness of his mind grew at last to a constant delirium or state of madness, by reason of several spectres and apparitions of evil genii or spirits, which he imagined were continually reproaching him with the many wicked actions of which he had been guilty. At last, having languished for some time in this miserable condition, he expired, and by his death freed the Jews from the most inveterate enemy they had ever known. Jews.

Notwithstanding the death of Antiochus, however, the war was still carried on against the Jews; but through the valour and good conduct of Judas, the Syrians were constantly defeated, and in 163 B. C. a peace was concluded upon terms very advantageous to the Jewish nation. This tranquillity, however, was of no long continuance; the Syrian generals renewed their hostilities, and were attended with the same ill success as before. Judas defeated them in five engagements; but in the sixth was abandoned by all his men except 800, who, together with their chief, were slain in the year 161 B. C.

15 Exploits of Jonathan, Simon, and Hyrcan. The news of the death of Judas threw his countrymen into the utmost consternation, and seemed to give new life to all their enemies. He was succeeded, however, by his brother Jonathan; who conducted matters with no less prudence and success than Judas had done, till he was treacherously seized and put to death by Tryphon, a Syrian usurper, who shortly after murdered his own sovereign. The traitor immediately prepared to invade Judea; but found all his projects frustrated by Simon, Jonathan's brother. This pontiff repaired all the fortresses of Judea, and furnished them with fresh garrisons, took Joppa and Gaza, and drove out the Syrian garrison from the fortress of Jerusalem; but was at last treacherously murdered by a son-in-law named *Ptolemy*, about 135 B. C.

Simon was succeeded by his son Hyrcan; who not only shook off the yoke of Syria, but conquered the Samaritans, demolished their capital city, and became master of all Palestine, to which he added the provinces of Samaria and Galilee; all which he enjoyed till within a year of his death, without the least disturbance from without, or any internal discord. His reign was no less remarkable on the account of his great wisdom and piety at home than his conquests abroad. He was the first since the captivity who had assumed the royal title; and he raised the Jewish nation to a greater degree of splendour than it had ever enjoyed since that time. The author of the fourth book of the Maccabees also informs us, that in him three dignities were centered which never met in any other person, namely, the royal dignity, the high priesthood, and the gift of prophecy. But the instances given of this last are very equivocal and suspicious. The last year of his reign, however, was embittered by a quarrel with the Pharisees; and which proceeded such a length as was thought to have shortened his days. Hyrcan had always been a great friend to that sect, and they had hitherto enjoyed the most honourable employments in the state; but at length one of them, named *Eleazar*, took it into his head to question Hyrcan's legitimacy, alleging, that his mother had formerly been a slave,

Jews.

slave, and consequently that he was incapable of enjoying the high-priesthood. This report was credited, or pretended to be so, by the whole sect; which irritated the high-priest to such a degree, that he joined the Sadducees, and could never afterwards be reconciled to the Pharisees, who therefore raised all the troubles and seditions they could during the short time he lived.

Hyrcan died in 107 B. C. and was succeeded by his eldest son Aristobulus, who conquered Iturea, but proved a most cruel and barbarous tyrant, polluting his hands with the blood even of his mother and one of his brothers, keeping the rest closely confined during his reign, which, however, was but short. He was succeeded in 105 by Alexander Jannæus, the greatest conqueror, next to King David, that ever sat on the Jewish throne. He was hated, however, by the Pharisees, and once in danger of being killed in a tumult excited by them; but having caused his guards to fall upon the mutinous mob, they killed 6000 of them, and dispersed the rest. After this, finding it impossible to remain in quiet in his own kingdom, he left Jerusalem, with a design to apply himself wholly to the extending of his conquests; but while he was busied in subduing his foreign enemies, the Pharisees raised a rebellion at home. This was quashed in the year 86 B. C. and the rebels were treated in the most inhuman manner. The faction, however, was by this means so thoroughly quelled, that they never dared to lift up their heads as long as he lived: and Alexander having made several conquests in Syria, died about 79 B. C.

16 Alexander Jannæus, a great conqueror.

The king left two sons, Hyrcanus and Aristobulus; but bequeathed the government tu his wife Alexandra as long as she lived: but as he saw her greatly afraid, and not without reason, of the resentment of the Pharisees, he desired his queen, just before his death, to send for the principal leaders of that party, and pretend to be entirely devoted to them; in which case, he assured her, that they would support her and her sons after her in the peaceable possession of the government. With this advice the queen complied; but found herself much embarrassed by the turbulent Pharisees, who, after several exorbitant demands, would at last be contented with nothing less than the total extermination of their adversaries the Sadducees. As the queen was unable to resist the strength of the pharisaic faction, a most cruel persecution immediately took place against the Sadducees, which continued for four years; until at last, upon their earnest petition, they were dispersed among the several garrisons of the kingdom, in order to secure them from the violence of their enemies. A few years after this, being seized with a dangerous sickness, her youngest son Aristobulus collected a strong party in order to secure the crown to himself; but the queen being displeased with his conduct, appointed her other son Hyrcanus, whom she had before made high-priest, to succeed her also in the royal dignity. Soon after this she expired, and left her two sons competitors for the crown. The Pharisees raised an army against Aristobulus, which almost instantly deserted to him, so that Hyrcanus found himself obliged to accept of peace upon any terms; which, however, was not granted, till the latter had abandoned all title both to the royal and pontifical dignity, and contented himself with the enjoyment of his peculiar patrimony as a private person.

17 Contests between his sons Hyrcanus and Aristobulus.

Jews.

But this deposition did not extinguish the party of Hyrcanus. A new cabal was raised by Antipater an Idumean proselyte, and father of Herod the Great; who carried off Hyrcanus into Arabia, under pretence that his life was in danger if he remained in Judea. Here he applied to Aretas king of that country, who undertook to restore the deposed monarch; and for that purpose invaded Judea, defeated Aristobulus, and kept him closely besieged in Jerusalem. The latter had recourse to the Romans; and having bribed Scaurus, one of their generals, he defeated Aretas with the loss of 7000 of his men, and drove him quite out of the country. The two brothers next sent presents to Pompey, at that time commander in chief of all the Roman forces in the east, and whom they made the arbitrator of their differences. But he, fearing that Aristobulus, against whom he intended to declare, might obstruct his intended expedition against the Nabatheans, dismissed them with a promise, that as soon as he had subdued Aretas, he would come into Judea and decide their controversy.

18 The Romans call in by Aristobulus.

This delay gave such offence to Aristobulus, that he suddenly departed for Judea without even taking leave of the Roman general, who on his part was no less offended at this want of respect. The consequence was, that Pompey entered Judea with those troops with which he had designed to act against the Nabatheans, and summoned Aristobulus to appear before him. The Jewish prince would gladly have been excused; but was forced by his own people to comply with Pompey's summons, to avoid a war with that general. He came accordingly more than once or twice to him, and was dismissed with great promises and marks of friendship. But at last Pompey insisted, that he should deliver into his hands all the fortified places he possessed; which let Aristobulus plainly see that he was in the interest of his brother, and upon this he fled to Jerusalem with a design tu oppose the Romans to the utmost of his power. He was quickly followed by Pompey; and to prevent hostilities was at last forced to go and throw himself at the feet of the haughty Roman, and to promise him a considerable sum of money as the reward of his forbearance. This submission was accepted; but Gabinius, being sent with some troops to receive the stipulated sum, was repulsed by the garrison of Jerusalem, who shut the gates against him, and refused to fulfil the agreement. This disappointment so exasperated Pompey, that he immediatcly marched with his whole army against the city.

19 Jerusalem taken by Pompey.

The Roman general first sent proposals of peace; but finding the Jews resolved to stand out to the last, he began the siege in form. As the place was strongly fortified both by nature and art, he might have found it very difficult to accomplish his design, had not the Jews been suddenly seized with a qualm of conscience respecting the observance of the sabbath-day. From the time of the Maccabees they had made no scruple of taking up arms against an offending enemy on the sabbath; but now they discovered, that though it was lawful on that day to stand on their defence in case they were actually attacked, yet it was unlawful to do any thing towards the preventing of those preparatives

Jews. paratives which the enemy made towards such future assaults. As therefore they never moved an hand to hinder the erection of mounds and batteries, or the making of breaches in the walls, on the sabbath, the besiegers at last made such a considerable breach on that day, that the garrison could no longer resist them. The city was therefore taken in the year 63 B. C. 12,000 of the inhabitants were slaughtered, and many more died by their own hands; while the priests, who were offering up the usual prayers and sacrifices in the temple, chose rather to be butchered along with their brethren, than suffer divine service to be one moment interrupted. At last, after the Romans had satiated their cruelty with the death of a vast number of the inhabitants, Hyrcanus was restored to the pontifical dignity with the title of *prince;* but forbid to assume the title of *king*, to wear a diadem, or to extend his territories beyond the limits of Judea. To prevent future revolts, the walls were pulled down; and Scaurus was left governor with a sufficient force. But before he departed, the Roman general gave the Jews a still greater offence than almost any thing he had hitherto done; and that was by entering into the most sacred recesses of the temple, where he took a view of the golden table, candlestick, censers, lamps, and all the other sacred vessels; but, out of respect to the Deity, forbore to touch any of them, and when he came out commanded the priests immediately to purify the temple according to custom.

Pompey having thus subdued the Jewish nation, set out for Rome, carrying along with him Aristobulus and his two sons Alexander and Antigonus, as captives, to adorn his future triumph. Aristobulus himself and his son Antigonus were led in triumph; but Alexander found means to escape into Judea, where he raised an army of 10,000 foot and 1500 horse, and began to fortify several strong-bolds, from whence he made incursions into the neighbouring country. As for Hyrcanus, he had no sooner found himself freed from his rival brother, than he relapsed into his former indolence, leaving the care of all his affairs to Antipater, who, like a true politician, failed not to turn the weakness of the prince to his own advantage and the aggrandizing of his family. He foresaw, however, that he could not easily compass his ends, unless he ingratiated himself with the Romans; and therefore spared neither pains nor cost to gain their favour. Scaurus soon after received from him a supply of corn and other provisions, without which his army, which he had led against the metropolis of Arabia, would have been in danger of perishing; and after this, he prevailed on the king to pay 300 talents to the Romans, to prevent them from ravaging his country. Hyrcanus was now in no condition to face his enemy Alexander; and therefore again had recourse to the Romans, Antipater at the same time sending as many troops as he could spare to join them. Alexander ventured a battle; but was defeated with considerable loss, and besieged in a strong fortress named *Alexandrion*. Here he would have been forced to surrender; but his mother, partly by her address, and partly by the services she found means to do the Roman general, prevailed upon him to grant her son a pardon for what was past. The fortresses were then demolished, that they might not give occasion to fresh revolts; Hyrcanus was again restored to the pontifical dignity; and the province was divided into five several districts, in each of which a separate court of judicature was erected. The first of these was at Jerusalem, the second at Gadara, the third at Amath, the fourth at Jericho, and the fifth at Sephoris in Galilee. Thus was the government changed from a monarchy to an aristocracy, and the Jews now fell under a set of domineering lords. Jews. 20 Jews government changed into an aristocracy.

Soon after this, Aristobulus found means to escape from his confinement at Rome, and raised new troubles in Judea, but was again defeated and taken prisoner: his son also renewed his attempts; but was in like manner defeated, with the loss of near 10,000 of his followers; after which Gabinius, having settled the affairs of Judea to Antipater's mind, resigned the government of his province to Crassus. The only transaction during his government was his plundering the temple of all its money and sacred utensils, amounting in the whole to 10,000 Attic talents, i. e. above two millions of our money. After this sacrilege, Crassus set out on his expedition against Parthia, where he perished; and his death was by the Jews interpreted as a divine judgment for his impiety.

21 Jews favoured by Cæsar.

The war between Cæsar and Pompey afforded the Jews some respite, and likewise an opportunity of ingratiating themselves with the former, which the artful Antipater readily embraced. His services were rewarded by the emperor. He confirmed Hyrcanus in his priesthood, added to it the principality of Judea, to be entailed on his posterity for ever, and restored the Jewish nation to their ancient rights and privileges; ordering at the same time a pillar to be erected, whereon all these grants, and his own decree, should be engraved, which was accordingly done; and soon after, when Cæsar himself came into Judea, he granted liberty also to fortify the city, and rebuild the wall which had been demolished by Pompey.

During the lifetime of Cæsar, the Jews were so highly favoured, that they could scarcely be said to feel the Roman yoke. After his death, however, the nation fell into great disorders; which were not finally quelled till Herod, who was created king of Judea by Mark Antony in 40 B. C. was fully established on the throne by the taking of Jerusalem by his allies the Romans in 37 B. C. The immediate consequence of this was another cruel pillage and massacre: then followed the death of Antigonus the son of Aristobulus, who had for three years maintained his ground against Herod, put to death his brother Phasael, and cut off Hyrcanus's ears, in order the more effectually to incapacitate him for the high-priesthood. 22 Herod raised to the Jewish throne.

23 His tyranny and cruelty.

The Jews gained but little by this change of masters. The new king proved one of the greatest tyrants mentioned in history. He began his reign with a cruel persecution of those who had sided with his rival Antigonus; great numbers of whom he put to death, seizing and confiscating their effects for his own use. Nay, such was his jealousy in this last respect, that he caused guards to be placed at the city gates, in order to watch the bodies of those of the Antigonian faction who were carried out to be buried, lest some of their riches should be carried along with them. His jealousy next prompted him to decoy Hyrcanus, the banished pontiff, from Parthia, where he had taken

Jews. refuge, that he might put him to death, though contrary to his most solemn promises. His cruelty then fell upon his own family. He had married Mariamne, the daughter of Hyrcanus; whose brother, Aristobulus, a young prince of great hopes, was made high priest at the intercession of his mother Alexandra. But the tyrant, conscious that Aristobulus had a better right to the kingdom than himself, caused him soon after to be drowned in a bath. The next victim was his beloved queen Mariamne herself. Herod had been summoned to appear first before Mark Antony, and then before Augustus, in order to clear himself from some crimes laid to his charge. As he was, however, doubtful of the event, he left orders that in case he was condemned, Mariamne should be put to death. This, together with the death of her father and brother, gave her such an aversion for him, that she showed it on all occasions. By this conduct the tyrant's resentment was at last so much inflamed, that having got her falsely accused of infidelity, she was condemned to die, and executed accordingly. She suffered with great resolution; but with her ended all the happiness of her husband. His love for Mariamne increased so much after her death, that for some time he appeared like one quite distracted. His remorse, however, did not get the better of his cruelty. The death of Mariamne was soon followed by that of her mother Alexandra, and this by the execution of several other persons who had joined with her in an attempt to secure the kingdom to the sons of the deceased queen.

Herod, having now freed himself from the greatest part of his supposed enemies, began to show a greater contempt for the Jewish ceremonies than formerly; and introduced a number of heathenish games, which made him odious to his subjects. Ten bold fellows at last took it into their heads to enter the theatre where the tyrant was celebrating some games, with daggers concealed under their clothes, in order to stab him or some of his retinue. In case they should miscarry in the attempt, they had the desperate satisfaction to think, that, if they perished, the tyrant would be rendered still more odious by the punishment inflicted on them. They were not mistaken: for Herod being informed of their design by one of his spies, and causing the assassins to be put to a most excruciating death, the people were so much exasperated against the informer, that they cut and tore him to pieces, and cast his flesh to the dogs. Herod tried in vain to discover the authors of this affront; but at last having caused some women to be put to the rack, he extorted from them the names of the principal persons concerned, whom he caused immediately to be put to death, with their families. This produced such disturbances, that, apprehending nothing less than a general revolt, he set about fortifying Jerusalem with several additional works, rebuilding Samaria, and putting garrisons into several fortresses in Judea. Notwithstanding this, however, Herod had shortly after an opportunity of regaining the affections of his subjects in some measure, by his generosity to them during a famine; but as he soon relapsed into his former cruelty, their love was again turned into hatred, which continued till his death.

24 Rebuilds the temple. Herod now, about 23 B. C. began to adorn his cities with many stately buildings. The most remarkable and magnificent of them all, however, was the temple at Jerusalem, which he is said to have raised to a higher pitch of grandeur than even Solomon himself had done. Ten thousand artificers were immediately set to work, under the direction of 1000 priests, the best skilled in carving, masonry, &c. all of whom were kept in constant pay. A thousand carts were employed in fetching materials; and such a number of other hands were employed, that every thing was got ready within the space of two years. After this, they set about pulling down the old building, and rearing up the new one with the same expedition: so that the *holy place*, or temple properly so called, was finished in a year and a half, during which we are told that it never rained in the day time, but only in the night. The remainder was finished in somewhat more than eight years. The *temple*, properly so called, or holy place, was but 60 cubits high, and as many in breadth; but in the front he added two wings or shoulders, which projected 20 cubits more on each side, and which in all made a front of 120 cubits in length, and as many in height; with a gate 70 cubits high and 20 in breadth, but open and without any doors. The stones were white marble, 25 cubits in length, 12 in height, and 9 in breadth, all wrought and polished with exquisite beauty; the whole resembling a stately palace, whose middle being considerably raised above the extremities of each face, made it afford a beautiful vista at a great distance, to those who came to the metropolis. Instead of doors, the gates closed with very costly veils, enriched with a variety of flowering of gold, silver, purple, and every thing that was rich and curious; and on each side of the gates were planted two stately columns, from whose cornices hung golden festoons and vines, with their clusters of grapes, leaves, &c. curiously wrought. The superstructure, however, which was improperly reared on the old foundation, without sufficient additions, proved too heavy, and sunk down about 20 cubits; so that its height was reduced to 100. This foundation was of an astonishing strength and height, of which an account is given under the article JERUSALEM. The platform was a regular square of a stadium or furlong on each side. Each front of the square had a spacious gate or entrance, enriched with suitable ornaments; but that on the west had four gates, one of which led to the palace, another to the city, and the two others to the suburbs and fields. This inclosure was surrounded on the outside with a strong and high wall of large stones, well cemented, and on the inside had on each front a stately piazza or gallery, supported by columns of such a bigness, that three men could but just embrace them, their circumference being about 17 feet. There were in all 162 of them, which supported a cedar cieling of excellent workmanship, and formed three galleries, the middlemost of which was the largest and highest, it being 45 feet in breadth and 100 in height, whereas those on each side were but 30 feet wide, and 50 in height.

The piazzas and court were paved with marble of various colours; and at a small distance from the galleries was a second inclosure, surrounded with a flight of beautiful marble rails, with stately columns at proper distances, on which were engraven certain admonitions in Greek and Latin, to forbid strangers, and those

Jews. those Jews that were not purified, to proceed farther under pain of death. This inclosure had but one gate on the east side; none on the west; but on the north and south it had three, placed at equal distances from each other.

A third enclosure surrounded the *temple*, properly so called, and the altar of burnt offerings; and made what they called *the court of the Hebrews* or *Israelites*. It was square like the rest; but the wall on the outside was surrounded by a flight of 14 steps, which hid a considerable part of it; and on the top was a terrace, of about 12 cubits in breadth, which went quite round the whole cincture. The east side had but one gate; the west none; and the north and south four, at equal distances. Each gate was ascended by five steps more before one could reach the level of the inward court; so that the wall which enclosed it appeared within to be but 25 cubits high, though considerably higher on the outside. On the inside of each of these gates were raised a couple of spacious square chambers, in form of a pavilion, 30 cubits wide, and 40 in height, each supported by columns of 12 cubits in circumference.

This inclosure had likewise a double flight of galleries on the inside, supported by a double row of columns; but the western side was only one continued wall, without gates or galleries. The women likewise had their particular court separate from that of the men, and one of the gates on the north and south leading to it.

The altar of burnt-offerings was likewise high and spacious, being 40 cubits in breadth, and 15 in height. The ascent to it was, according to the Mosaic law, smooth, and without steps; and the altar of unhewn stones. It was surrounded at a convenient distance, with a low wall or rail, which divided the court of the priests from that of the lay Israelites; so that these last were allowed to come thus far to bring their offerings and sacrifices; though none but the priests were allowed to come within that inclosure.

Herod caused a new dedication of this temple to be performed with the utmost magnificence, and presented to it many rich trophies of his former victories, after the custom of the Jewish monarchs.

This, and many other magnificent works, however, did not divert the king's attention from his usual jealousies and cruelty. His sister Salome, and one of his sons named *Antipater*, taking advantage of this disposition, prompted him to murder his two sons by Mariamne, named *Alexander* and *Aristobulus*, who had been educated at the court of Augustus in Italy, and were justly admired by all who saw them. His cruelty soon after broke out in an impotent attempt to destroy the Saviour of the world, but which was attended with no other consequence than the destruction of 2000 innocent children of his own subjects. His misery was almost brought to its summit by the discovery of Antipater's designs against himself; who was accordingly tried and condemned for treason. Something still more dreadful, however, yet awaited him; he was seized with a most loathsome and incurable disease, in which he was tormented with intolerable pains, so that his life became a burden. At last he died to the great joy of the Jews, five days after he had put Antipater to death, and after having divided his kingdom among his sons in the following manner.—Archelaus had Judea; Antipas, or Herod, was tetrarch of Galilee and Perea; and Philip had the regions of Trachonitis, Gaulon, Batanea, and Panias, which he erected likewise into a tetrarchy. To his sister Salome he gave 50,000 pieces of money, together with the cities of Jamnia, Azotus, and Phasaelis; besides some considerable legacies to his other relations.

15 His death.

Jews.

The cruelty of this monster accompanied him to his grave; nay, he in a manner carried it beyond the grave. Being well apprised that the Jews would rejoice at being freed from such a tyrant, he bethought himself of the following infernal stratagem to damp their mirth. A few days before his death, he summoned all the heads of the Jews to repair to Jericho under pain of death; and, on their arrival, ordered them all to be shut up in the circus, giving at the same time strict orders to his sister Salome and her husband to have all the prisoners butchered as soon as his breath was gone out. "By this means (said he), I shall not only damp the people's joy, but secure a real mourning at my death." These cruel orders, however, were not put in execution. Immediately after the king's death, Salome went to the Hippodrome, where the heads of the Jews were detained, caused the gates to be flung open, and declared to them, that now the king had no further occasion for their attendance, and that they might depart to their respective homes; after which, and not till then, the news of the king's death was published. Tumults, seditions, and insurrections, quickly followed. Archelaus was opposed by his brethren, and obliged to appear at Rome before Augustus, to whom many complaints were brought against him. After hearing both parties, the emperor made the following division of the kingdom: Archelaus had one half, under the title of *ethnarch*, or governor of a nation; together with a promise that he should have the title of *king*, as soon as he showed himself worthy of it. This ethnarchy contained Judea Propria, Idumea, and Samaria: but this last was exempted from one-fourth of the taxes paid by the rest, on account of the peaceable behaviour of the inhabitants during the late tumults. The remainder was divided between Philip and Herod; the former of whom had Trachonitis, Batanea, and Auranitis, together with a small part of Galilee; the latter had the rest of Galilee and the countries beyond the Jordan. Salome had half a million of silver, together with the cities of Jamnia, Azotus, Phasaelis, and Ascalon.

16 New division of the kingdom by Augustus.

For some years Archelaus enjoyed his government in peace; but at last, both Jews and Samaritans, tired out with his tyrannical behaviour, joined in a petition to Augustus against him. The emperor immediately summoned him to Rome, where, having heard his accusation and defence, he banished him to the city of Vienne in Dauphiny, and confiscated all his effects. Judea being by this sentence reduced to a Roman province, was ordered to be taxed: and Cyrenius the governor of Syria, a man of consular dignity, was sent thither to see it put in execution: which having done, and sold the palaces of Archelaus, and seized upon all his treasure, he returned to Antioch, leaving the Jews in no small ferment on account of this new tax.

17 Archelaus banished, and a Roman governor appointed over Judea.

Jews.

Thus were the seeds of dissension sown between the Jews and Romans, which ended in the most lamentable catastrophe of the former. The Jews, always impatient of a foreign yoke, knew from their prophecies, that the time was now come when the Messiah should appear. Of consequence, as they expected him to be a great and powerful warrior, their rebellious and seditious spirit was heightened to the greatest degree; and they imagined they had nothing to do but take up arms, and victory would immediately declare on their side. From this time, therefore, the country was never quiet; and the infatuated people, while they rejected the true Messiah, gave themselves up to the direction of every impostor who chose to lead them to their own destruction. The governors appointed by the Romans were also frequently changed, but seldom for the better. About the 16th year of Christ, Pontius Pilate was appointed governor; the whole of whose administration, according to Josephus, was one continued scene of venality, rapine, tyranny, and every wicked action; of racking and putting innocent men to death, untried and uncondemned; and of every kind of savage cruelty. Such a governor was but ill calculated to appease the ferments occasioned by the late tax. Indeed Pilate was so far from attempting this, that he greatly inflamed them by taking every occasion of introducing his standards with images and pictures, consecrated shields, &c. into their city; and at last attempting to drain the treasury of the temple, under pretence of bringing an aqueduct into Jerusalem. The most remarkable transaction of his government, however, was his condemnation of JESUS CHRIST; seven years after which he was removed from Judea; and in a short time Agrippa, the grandson of Herod the Great, was promoted by Caius to the regal dignity.

28 Agrippa made king.

He did not, however, long enjoy this honour; for, on his coming into Judea, having raised a persecution against the Christians, and blasphemously suffering himself to be styled a *God* by some deputies from Tyre and Sidon, he was miraculously struck with a disease, which soon put an end to his life. The sacred historian tells us, that he was eaten of worms; and Josephus, that he was seized with most violent pains in his heart and bowels; so that he could not but reflect on the baseness of those flatterers, who had but lately complimented him with a kind of divine immortality, that was now about to expire in all the torments and agonies of a miserable mortal.

29 The kingdom again reduced to a Roman province.

On the death of Agrippa, Judea was once more reduced to a province of the Roman empire, and had new governors appointed over it. These were Ventidius, Felix, Festus Albinus, and Gessius Florus.—Under their government the Jewish affairs went on from bad to worse; the country swarmed with robbers and assassins; the latter committing everywhere the most unheard-of cruelties under the pretence of religion; and about 64 A. C. were joined by 18,000 workmen, who had been employed in further repairing and beautifying the temple. About this time also, Gessius Florus, the last and worst governor the Jews ever had, was sent into the country. Josephus seems at a loss for words to describe him by, or a monster to compare him to. His rapines, cruelties, conniving for large sums with the banditti, and in a word, his whole behaviour, was so open and barefaced, that he was looked upon by the Jews more like a bloody executioner, sent to butcher, than a magistrate to govern them. In this distracted state of the country, many of the inhabitants forsook it to seek for an asylum somewhere else; while those who remained applied themselves to Cestius Gallus, governor of Syria, who was at Jerusalem at the passover; beseeching him to pity their unhappy state, and free them from the tyranny of a man who had totally ruined their country. Florus, who was present when these complaints were brought against him, made a mere jest of them; and Cestius, instead of making a strict inquiry into his conduct, dismissed the Jews with a general promise that the governor should behave better for the future; and set himself about computing the number of Jews at that time in Jerusalem, by the number of lambs offered at that festival, that he might send an account of the whole to Nero. By his computation, there were at that time in Jerusalem 2,556,000; though Josephus thinks they rather amounted to 3,000,000.

Jews.

30 Cause of the last war with the Romans.

In the year 67 began the fatal war with the Romans, which was ended only by the destruction of Jerusalem. The immediate cause was the decision of a contest with the Syrians concerning the city of Cæsarea. The Jews maintained that this city belonged to them, because it had been built by Herod; and the Syrians pretended that it had always been reckoned a Greek city, since even that monarch had reared temples and statues in it. The contest at last came to such an height, that both parties took up arms against each other. Felix put an end to it for a time, by sending some of the chiefs of each nation to Rome, to plead their cause before the emperor, where it hung in suspense till this time, when Nero decided it against the Jews. No sooner was this decision made public, than the Jews in all parts of the country flew to arms; and though they were everywhere the sufferers, yet, from this fatal period, their rage never abated. Nothing was now to be heard of but robberies, murders, and every kind of cruelty. Cities and villages were filled with dead bodies of all ages, even sucking babes.

31 The Jews terribly massacred.

The Jews, on their part, spared neither Syrians nor Romans, where they got the better of them; and this proved the destruction of great numbers of their peaceful brethren; 20,000 were massacred at Cæsarea, 50,000 at Alexandria, 2000 at Ptolemais, and 3500 at Jerusalem.

A great number of assassins, in the mean time, having joined the factious Jews in Jerusalem, they beat the Romans out of Antonia, a fortress adjoining to the temple, and another called *Massada*; and likewise out of the towers called *Phasael* and *Mariamne*, killing all who opposed them. The Romans were at last reduced to such straits, that they capitulated on the single condition that their lives should be spared; notwithstanding which, they were all massacred by the furious zealots; and this treachery was soon revenged on the faithful Jews of Scythopolis. These had offered to assist in reducing their factious brethren; but their sincerity being suspected by the townsmen, they obliged them to retire into a neighbouring wood, where, on the third night, they were massacred to the number of 13,000, and all their wealth carried off. The rebels, in the mean time, crossed the Jordan, and took the fortresses of Machæron and

Jews.

32 They defeat Cestius Gallus.

and Cyprus; which last they razed to the ground, after having put all the Romans to the sword.—This brought Cestius Gallus, the Syrian governor, into Judea with all his forces; but the Jews, partly by treachery and partly by force, got the better of him, and drove him out of the country with the loss of 5000 men.

All this time such dreadful dissensions reigned among the Jews, that great numbers of the better sort, foreseeing the sad effects of the resentment of the Romans, left the city as men do a sinking vessel; and the Christians, mindful of their Saviour's prediction, retired to Pella, a city on the other side of Jordan, whither the war did not reach. Miserable was the fate of such as either could not, or would not, leave that devoted city. Vespasian was now ordered to leave Greece, where he was at that time, and to march with all speed into Judea. He did so accordingly at the head of a powerful army, ordering his son Titus in the mean time to bring two more legions from Alexandria; but before he could reach that country, the Jews had twice attempted to take the city of Ascalon, and were each time repulsed with the loss of 10,000 of their number. In the beginning of the year 68, Vespasian entered Galilee at the head of an army of 60,000 men, all completely armed and excellently disciplined. He first took and burnt Gadara: then he laid siege to Jotapa, and took it after a stout resistance; at which he was so provoked, that he caused every one of the Jews to be massacred or carried into captivity, not one being left to carry the dreadful news to their brethren. Forty thousand perished on this occasion: only 1200 were made prisoners, among whom was Josephus the Jewish historian. Japha next shared the same fate, after an obstinate siege; all the men being massacred, and the women and children carried into captivity. A week after this, the Samaritans, who had assembled on Mount Gerizzim, were almost all put to the sword, or perished. Joppa fell the next victim to the Roman vengeance. It had been formerly laid waste by Cestius; but was now repeopled and fortified by the seditious Jews who infested the country. It was taken by storm, and shared the same fate with the rest. Four thousand Jews attempted to escape by taking to their ships; but were driven back by a sudden tempest, and all of them were drowned or put to the sword. Tarichea and Tiberias were next taken, but part of their inhabitants were spared on account of their peaceable dispositions. Then followed the sieges of Gamala, Gischala, and Itabyr. The first was taken by storm, with a dreadful slaughter of the Jews; the last by stratagem. The inhabitants of Gischala were inclinable to surrender: but a seditious Jew of that town, named *John*, the son of Levi, head of the faction, and a vile fellow, opposed it; and, having the mob at his back, overawed the whole city. On the sabbath he begged of Titus to forbear hostilities till to-morrow, and then he would accept his offer; but instead of that, he fled to Jerusalem with as many as would follow him. The Romans, as soon as they were informed of his flight, pursued, and killed 6000 of his followers on the road, and brought back near 3000 women and children prisoners. The inhabitants then surrendered to Titus; and only the factious were punished; and this completed the reduction of Galilee.

33 Vespasian sent against them.

Jews.

The Jewish nation by this time was divided into two very opposite parties: the one foreseeing that this war, if continued, must end in the total ruin of their country, were for putting an end to it by submitting to the Romans; the other, which was the remains of the faction of Judas Gaulonites, breathed nothing but war and confusion, and opposed all peaceable measures with invincible obstinacy. This last, which was by far the most numerous and powerful, consisted of men of the vilest and most profligate characters that can be paralleled in history. They were proud, ambitious, cruel, rapacious, and committed the most horrid and unnatural crimes under the mask of religion. They affirmed everywhere, that it was offering the greatest dishonour to God to submit to any earthly potentate; much less to Romans and to heathens. This, they said, was the only motive that induced them to take up arms, and to bind themselves under the strictest obligations not to lay them down till they had either totally extirpated all foreign authority, or perished in the attempt.—This dreadful dissension was not confined to Jerusalem, but had infected all the cities, towns, and villages, of Palestine. Even houses and families were so divided against each other, that, as our Saviour had expressly foretold, a man's greatest enemies were often those of his own family and household. In short, if we may believe Josephus, the zealots acted more like incarnate devils than like men who had any sense of humanity left them.—This obliged the contrary party likewise to rise up in arms in their own defence against those miscreants; from whom, however, they suffered much more than they did even from the exasperated Romans.—The zealots began their outrages by murdering all that opposed them in the countries round about. Then they entered Jerusalem; but met with a stout opposition from the other party headed by Ananus, who had lately been high-priest. A fierce engagement ensued between them; and the zealots were driven into the inner cincture of the temple, where they were closely besieged. John of Gischala above-mentioned, who had pretended to side with the peaceable party, was then sent with terms of accommodation; but, instead of advising the besieged to accept of them, he persuaded them still to hold out, and call the Idumeans to their assistance. They did so, and procured 20,000 of them to come to their relief; but these new allies were refused admittance into the city. On that night, however, there happened such a violent storm, accompanied with thunder, lightning, and an earthquake, that the zealots from within the inner court sawed the bolts and hinges of the temple-gates without being heard, forced the guards of the besiegers, sallied into the city, and led in the Idumeans. The city was instantly filled with butcheries of the most horrid kind. Barely to put any of the opposite party to death was thought too mild a punishment; they must have the pleasure of murdering them by inches: so that they made it now their diversion to put them to the most exquisite tortures that could be invented; nor could they be prevailed upon to dispatch them till the violence of their torments had rendered them quite

34 Different factions among the Jews.

35 Cruelty of the zealots.

Jews. quite incapable of feeling them. In this manner perished 12,000 persons of noble extraction, and in the flower of their age; till at last the Idumeans complained so much against the putting such numbers to death, that the zealots thought proper to erect a kind of tribunal, which, however, was intended not for judgment but condemnation: for the judges having once acquitted a person who was manifestly innocent, the zealots not only murdered him in the temple, but deposed the new-created judges as persons unfit for their office.

The zealots, after having exterminated all those of any character or distinction, began next to wreak their vengeance on the common people. This obliged many of the Jews to forsake Jerusalem, and take refuge with the Romans, though the attempt was very hazardous; for the zealots had all the avenues well guarded, and failed not to put to death such as fell into their hands. Vespasian in the mean time staid at Cæsarea an idle spectator of their outrages; well knowing that the zealots were fighting for him, and that the strength of the Jewish nation was gradually wasting away. Every thing succeeded to his wish. The zealots, after having massacred or driven away the opposite party, turned their arms against each other. A party was formed against John, under one Simon who had his head-quarters at the fortress of Massada. This new miscreant plundered, burned, and massacred, wherever he came, carrying the spoil into the fortress above-mentioned. To increase his party, he caused a proclamation to be published, by which he promised liberty to the slaves, and proportionable encouragement to the freemen who joined him. This stratagem had the desired effect, and he soon saw himself at the head of a considerable army. Not thinking himself, however, as yet master of force sufficient to besiege Jerusalem, he invaded Idumea with 20,000 men. The Idumeans opposed him with 25,000; and a sharp engagement ensued, in which neither party was victorious. But Simon, soon after, having corrupted the Idumean general, got their army delivered up to him. By this means he easily became master of the country; where he committed such cruelties, that the miserable inhabitants abandoned it to seek for shelter in Jerusalem.

36 They turn their arms against each other.

In the city, matters went in the same way. John tyrannized in such a manner, that the Idumeans revolted, killed a great number of his men, plundered his palace, and forced him to retire into the temple. In the mean time the people, having taken a notion that he would sally out in the night and set fire to the city, called a council, in which it was resolved to admit Simon with his troops, in order to oppose John and his zealots. Simon's first attempt against his rival, however, was ineffectual, and he was obliged to content himself with besieging the zealots in the temple. In the mean time, the miseries of the city were increased by the starting up of a third party headed by one Eleazar, who seized on the court of the priests, and kept John confined within that of the Israelites. Eleazar kept the avenues so well guarded, that none were admitted to come into that part of the temple but those who came thither to offer sacrifices; and it was by these offerings chiefly that he maintained himself and his men. John by this means found himself hemmed in between two powerful enemies, Simon below, and Eleazar above. He defended himself, however, against them both with great resolution; and when the city was invested by the Romans, having pretended to come to an agreement with his rivals, he found means totally to cut off or force Eleazar's men to submit to him, so that the factions were again reduced to two.

Jews.

37 The Romans advance to Jerusalem.

The Romans, in the year 72, began to advance towards the capital. In their way they destroyed many thousands, wasting the country as they went along; and in the year 73 arrived before the walls of Jerusalem, under Titus afterwards emperor. As he was a man of an exceedingly merciful disposition, and greatly desired to spare the city, he immediately sent offers of peace; but these were rejected with contempt, and he himself put in great danger of his life, so that he resolved to begin the siege in form. In the mean time, Simon and John renewed their hostilities with greater fury than ever. John now held the whole temple, some of the out-parts of it, and the valley of Cedron. Simon had the whole city to range in; in some parts of which John had made such devastations, that they served them for a field of battle, from which they sallied unanimously against the common enemy whenever occasion served; after which they returned to ther usual hostilities, turning their arms against each other, as if they had sworn to make their ruin more easy to the Romans. These drew still nearer to the walls, having with great labour and pains levelled all the ground between Scopas and them, by pulling down all the houses and hedges, cutting down the trees, and even cleaving the rocks that stood in their way, from Scopas to the tomb of Herod, and Bethara or the pool of serpents; in which work so many hands were employed, that they finished it in four days.

38 Offers of peace rejected.

Whilst this was doing, Titus sent the besieged some offers of peace; and Josephus was pitched upon to be the messenger of them: but they were rejected with indignation. He sent a second time Nicanor and Josephus with fresh offers, and the former received a wound in his shoulder; upon which Titus resolved to begin the assault in good earnest, and ordered his men to raze the suburbs, cut down all the trees, and use the materials to raise platforms against the wall. Every thing was now carried on with invincible ardour; the Romans began to play their engines against the city with all their might. The Jews had likewise their machines upon the walls, which they plied with uncommon fury; they had taken them lately from Cestius; but were so ignorant in their use, that they did little execution with them, till they were better instructed by some Roman deserters: till then, their chief success was rather owing to their frequent sallies; but the Roman legions, who had all their towers and machines before them, made terrible havock. The least stones they threw were near 100 weight; and these they could throw the length of a quarter of a mile against the city, and with such a force, that they could do mischief on those that stood at some distance behind them. Titus had reared three towers 50 cubits high; one of which happening to fall in the middle of the night, greatly alarmed the Roman camp, who immediately ran to arms at the noise of it; but Titus, upon knowing the cause, dismissed them, and caused

39 The siege carried on with vigour.

Jews. it to be set up again. These towers, being plated with iron, the Jews tried in vain to set fire to them, but were at length forced to retire out of the reach of their shot: by which the battering-rams were now at full liberty to play against the wall. A breach was soon made in it, at which the Romans entered: and the Jews, abandoning this last inclosure, retired behind the next. This happened about the 28th of April, a fortnight after the beginning of the siege.

John defended the temple and the castle of Antonia, and Simon the rest of the city. Titus marched close to the second wall, and plied his battering-rams so furiously, that one of the towers, which looked towards the north, gave a prodigious shake. The men who were in it, made a signal to the Romans, as if they would surrender; and at the same time, sent Simon word to be ready to give them a warm reception. Titus, having discovered their stratagem, plied his work more furiously, whilst the Jews that were in the tower set it on fire, and flung themselves into the flames. The tower being fallen, gave them an entrance into the second enclosure, five days after gaining the first; and Titus, who was bent on saving the city, would not suffer any part of the wall or streets to be demolished; which left the breach and lanes so narrow, that when his men were furiously repulsed by Simon, they had not room enough to make a quick retreat, so that there was a number of them killed in it. This oversight was quickly rectified; and the attack renewed with such vigour, that the place was carried four days after their first repulse.

40 Famine and pestilence in the city. The famine, raging in a terrible manner in the city, was soon followed by a pestilence; and as these two dreadful judgments increased, so did the rage of the factious, who by their intestine feuds, had destroyed such quantities of provisions, that they were forced to prey upon the people with the most unheard-of cruelty. They forced their houses; and, if they found any victuals in them, they butchered them for not apprising them of it; and, if they found nothing but bare walls, which was almost everywhere the case, they put them to the most severe tortures, under pretence that they had some provision concealed. "I should (says Josephus) undertake an impossible task, were I to enter into a detail of all the cruelties of those impious wretches; it will be sufficient to say, that I do not think, that since the creation any city ever suffered such dreadful calamities, or abounded with men so fertile in all kinds of wickedness."

41 Offers of peace rejected. Titus, who knew their miserable condition, and was still willing to spare them, gave them four days to cool; during which he caused his army to be mustered, and provisions to be distributed to them in sight of the Jews, who flocked upon the walls to see it. Josephus was sent to speak to them afresh, and to exhort them not to run themselves into an inevitable ruin by obstinately persisting in the defence of a place which could hold out but a very little while, and which the Romans looked upon already as their own. But this stubborn people, after many bitter invectives, began to dart their arrows at him; at which, not at all discouraged, he went on with greater vehemence: but all the effect it wrought on them was, that it prevailed on great numbers to steal away privately to the Romans, whilst the rest became only the more desperate and resolute to hold out to the last, in spite of Titus's merciful offers. Jews.

To hasten therefore their destined ruin, he caused the city to be surrounded with a strong wall, to prevent either their receiving any succours or provision from abroad, or their escaping his resentment by flight. This wall, which was near 40 stadia or five miles in circuit, was yet carried on with such speed, and by so many hands, that it was finished in three days; by which one may guess at the ardour of the besiegers to make themselves masters of the city.

There was now nothing to be seen through the streets of Jerusalem but heaps of dead bodies rotting above ground, walking skeletons, and dying wretches. As many as were caught by the Romans in their sallies, Titus caused to be sacrificed in sight of the town, to strike terror among the rest: but the zealots gave it out, that they were those who fled to him for protection; which when Titus understood, he sent a prisoner with his hands cut off to undeceive, and assure them, that he spared all that voluntarily came over to him; which encouraged great numbers to accept his offers, though the avenues were closely guarded by the factious, who put all to death who were caught going on that errand. A greater mischief than that was, that even those who escaped safe to the Roman camp were miserably butchered by the soldiers, from a notion which these had taken that they had swallowed great quantities of gold; so that two thousand of them were ripped up in one night, to come at their supposed treasure. When Titus was apprised of this barbarity, he would have condemned all those butchering wretches to death; but they proved so numerous, that he was forced to spare them, and contented himself with sending a proclamation through his camp, that as many as should be suspected thenceforward of that horrid villany should be put to immediate death: yet did this not deter many of them from it, only they did it more privately than before; so greedy were they of that bewitching metal. All this while the defection increased still more through the inhumanity of the faction within, who made the miseries and dying groans of their starving brethren the subject of their cruel mirth, and carried their barbarity even to the sheathing of their swords in sport in those poor wretches, under pretence of trying their sharpness.

When they found therefore that neither their guards nor severities could prevent the people's flight, they had recourse to another stratagem equally impious and cruel: which was, to hire a pack of vile pretenders to propheey, to go about and encourage the despairing remains of the people to expect a speedy and miraculous deliverance; and this imposture proved a greater expedient with that infatuated nation than their other precautions.

42 Miserable condition of the Jews. Nothing could be more dreadful than the famished condition to which they were now reduced. The poor, having nothing to trust to but the Roman's mercy or a speedy death, ran all hazards to get out of the city; and if in their flight, and wandering out for herbs or any other sustenance, they fell into the hands of any of Titus's parties sent about to guard the avenues, they were unmercifully scourged, and crucified if they made the least resistance. The rich within the walls were

now

Jews. now forced, though in the most private manner, to give half, or all they were worth, for a measure of wheat, and the middling sort for one of barley. This they were forced to convey into some private place in their houses, and to feed upon it as it was, without daring to pound or grind it, much less to boil or bake it, lest the noise or smell should draw the rapacious zealots to come and tear it from them. Not that these were reduced to any real want of provisions: but they had a double end in this barbarous plunder; to wit, the starving what they cruelly styled all useless persons, and the keeping their own stores in reserve. It was upon this sad and pinching juncture, that an unhappy mother was reduced to the extremity of butchering and eating her own child.

43 A mother eats her own child.

When this news was spread through the city, the horror and consternation were as universal as they were inexpressible. It was then that they began to think themselves forsaken by the Divine Providence, and to expect the most terrible effects of his anger against the poor remains of their nation; insomuch that they began to envy those that had perished before them, and to wish their turn might come before the sad expected catastrophe. Their fears were but too just; since Titus, at the very first hearing of this inhuman deed, swore the total extirpation of city and people. "Since (said he) they have so often refused my proffers of pardon, and have preferred war to peace, rebellion to obedience, and famine, such a dreadful one especially, to plenty, I am determined to bury that accursed metropolis under its ruins, that the sun may never shoot his beams on a city where the mothers feed on the flesh of their children, and the fathers, no less guilty than they, choose to drive them to such extremities, rather than lay down their arms."

44 Titus swears the total ruin of the city.

The dreadful action happened about the end of July, by which time the Romans, having pursued their attacks with fresh vigour, made themselves masters of the fortress Antonia; which obliged the Jews to set fire to those stately galleries which joined it to the temple, lest they should afford an easy passage to the besiegers into this last. About the same time Titus, with much difficulty, got materials for raising new mounds and terraces, in order to hasten the siege, and save, if possible, the sad remains of that once glorious structure; but his pity proved still worse and worse bestowed on those obstinate wretches, who only became the more furious and desperate by it. Titus at length caused fire to be set to the gates, after having had a very bloody encounter, in which his men were repulsed with loss. The Jews were so terrified at it, that they suffered themselves to be devoured by the flames, without attempting either to extinguish them or save themselves. All this while Josephus did not cease exhorting the infatuated people to surrender, to represent to them the dreadful consequences of an obstinate resistance, and to assure them that it was out of mere compassion to them that he thus hazarded his own life to save theirs: he received one day such a wound in his head by a stone from the battlements, as laid him for dead on the ground. The Jews sallied out immediately, to have seized on his body: but the Romans proved too quick and strong for them, and carried him off.

45 John plunders the temple.

By this time the two factions within, but especially that of John, having plundered rich and poor of all they had, fell also on the treasury of the temple, whence John took a great quantity of golden utensils, together with those magnificent gifts which had been presented to that sacred place by the Jewish kings, by Augustus, Livia, and many other foreign princes, and melted them all to his own use. The repositories of the sacred oil which was to maintain the lamps, and of the wine which was reserved to accompany the usual sacrifices, were likewise seized upon, and turned into common use; and the last of this to such excess, as to make himself and his party drunk with it. All this while, not only the zealots, but many of the people, were still under such an infatuation, that though the fortress Antonia was lost, and nothing left but the temple, which the Romans were preparing to batter down, yet they could not persuade themselves that God would suffer that holy place to be taken by heathens, and were still expecting some sudden and miraculous deliverance. Even that vile monster John, who commanded there, either seemed confident of it, or else endeavoured to make them think him so. For, when Josephus was sent for the last time to upbraid his obstinately exposing that sacred building, and the miserable remains of God's people, to sudden and sure destruction, he only answered him with the bitterest invectives; adding, that he was defending the Lord's vineyard, which he was sure could not be taken by any human force. Josephus in vain reminded him of the many ways by which he had polluted both city and temple; and in particular of the seas of blood which he caused to be shed in both those sacred places, and which, he assured him from the old prophecies, were a certain sign and forerunner of their speedy surrender and destruction. John remained as inflexible as if all the prophets had assured him of a deliverance, till at length Titus, foreseeing the inevitable ruin of that stately edifice, which he was still extremely desirous to save, vouchsafed even himself to speak to them, and to persuade them to surrender. But the factious, looking upon this condescension as the effects of his fear rather than generosity, only grew the more furious upon it, and forced him at last to come to those extremities which he had hitherto endeavoured to avoid. That his army, which was to attack the temple, might have the freer passage towards it through the castle Antonia, he caused a considerable part of the wall to be pulled down and levelled; which proved so very strong, that it took him up seven whole days, by which time they were far advanced in the month of July.

46 The daily sacrifice interrupted.

It was on the 17th day of that month, as all Josephus's copies have it, that the daily sacrifice ceased for the first time since its restoration by the brave Judas Maccabeus, there being no proper person left in the temple to offer it up. Titus caused the factious to be severely upbraided for it; exhorted John to set up whom he would to perform that office, rather than suffer the service of God to be set aside; and then challenged him and his party to come out of the temple, and fight on a more proper ground, and thereby save that sacred edifice from the fury of the Roman troops. When nothing could prevail on them, they began to set fire again to the gallery which formed a communication between the temple and the castle Antonia. The

Jews. Jews had already burnt about 20 cubits of it in length; but this second blaze, which was likewise encouraged by the besieged, consumed about 14 more; after which, they beat down what remained standing. On the 27th of July, the Jews, having filled part of the western portico with combustible matter, made a kind of flight; upon which, some of the forwardest of the Romans having scaled up to the top, the Jews set fire to it, which flamed with such sudden fury, that many of the former were consumed in it, and the rest, venturing to jump down from the battlements, were, all but one, crushed to death.

On the very next day, Titus having set fire to the north gallery, which inclosed the outer court of the temple, from Fort Antonia to the valley of Cedron, got an easy admittance into it, and forced the besieged into that of the priests. He tried in vain six days to batter down one of the galleries of that precinct with an helepolis: he was forced to mount his battering-rams on the terrace, which was raised by this time; and yet the strength of this wall was such, that it eluded the force of these also, though others of his troops were busy in sapping it. When they found that neither rams nor sapping could gain ground, they bethought themselves of scaling; but were vigorously repulsed in the attempt, with the loss of some standards, and a number of men. When Titus therefore found that his desire of saving that building was like to cost so many lives, he set fire to the gates, which, being plated with silver, burnt all that night, whilst the metal dropt down in the melting. The flame soon communicated itself to the porticoes and galleries; which the besieged beheld without offering to stop it, but contented themselves with sending whole volleys of impotent curses against the Romans. This was done on the 8th of August; and, on the next day, Titus, having given orders to extinguish the fire, called a council, to determine whether the remainder of the temple should be saved or demolished. That general was still for the former, and most of the rest declared for the latter; alleging, that it was no longer a temple, but a scene of war and slaughter, and that the Jews would never be at rest as long as any part of it was left standing: but when they found Titus stiffly bent on preserving so noble an edifice, against which he told them he could have no quarrel, they all came over to his mind. The next day, August the 10th, was therefore determined for a general assault: and the night before the Jews made two desperate sallies on the Romans; in the last of which, these, being timely succoured by Titus, beat them back into their inclosure.

47 The gates of the temple set on fire.

But whether this last Jewish effort exasperated the besiegers, or, which is more likely, as Josephus thinks, pushed by the hand of Providence, one of the Roman soldiers, of his own accord, took up a blazing firebrand, and, getting on his comrade's shoulders, threw it into one of the apartments that surrounded the sanctuary, through a window. This immediately set the whole north side in a flame up to the third story, on the same fatal day and month in which it had been formerly burnt by Nebuchadnezzar. Titus, who was gone to rest himself a while in his pavilion, was awaked at the noise, and ran immediately to give orders to have the fire extinguished. He called, prayed, threatened, and even caned his men, but in vain; the confusion was so great, and the soldiers so obstinately bent upon destroying all that was left, that he was neither heard nor minded. Those that flocked thither from the camp, instead of obeying his orders, were busy, either in killing the Jews, or in increasing the flames. When Titus observed that all his endeavours were vain, he entered into the sanctuary and the most holy place, in which he found still such sumptuous utensils and other riches as even exceeded all that had been told him of it. Out of the former he saved the golden candlestick, the table of shew-bread, the altar of perfumes, all of pure gold, and the book or volume of the law, wrapped up in a rich gold tissue: but in the latter he found no utensils, because, in all probability, they had not made a fresh ark since that of Solomon had been lost. Upon his coming out of that sacred place, some other soldiers set fire to it, and obliged those that had staid behind to come out; they all fell foul on the plunder of it, tearing even the gold plating off the gates and timber work, and carried off all the costly utensils, robes, &c. they found, insomuch that there was not one of them who did not enrich himself by it.

Jews.

An horrid massacre followed soon after, in which a great many thousands perished; some by the flames, others by the fall from the battlements, and a greater number by the enemy's sword, which destroyed all it met with, without distinction of age, sex, or quality. Among them were upwards of 6000 persons who had been seduced thither by a false prophet, who promised them that they should find a speedy and miraculous relief there on that very day. Some of them remained five whole days on the top of the walls, and afterwards threw themselves on the general's mercy; but were answered that they had outstaid the time, and were led to execution. The Romans carried their fury to the burning of all the treasure-houses of the place, though they were full of the richest furniture, plate, vestments, and other things of value, which had been laid up in those places for security. In a word, they did not cease burning and butchering, till they had destroyed all, except two of the temple-gates, and that part of the court which was destined for the women.

48 A dreadful massacre.

In the mean time the seditious made such a vigorous push, that they escaped the fury of the Romans, at least for the present, and retired into the city. But here they found all the avennes so well guarded, that there was no possibility left for them to get out; which obliged them to secure themselves as well as they could on the south side of it, from whence Simon, and John of Gischala, sent to desire a parley with Titus. They were answered, that though they had been the cause of all this bloodshed and ruin, yet they should have their lives spared, if they laid down their arms and surrendered themselves prisoners. To this they replied, that they had engaged themselves, by the most solemn oaths, never to surrender; and, therefore, only begged leave to retire into the mountains with their wives and children: which insolence so exasperated the Roman general, that he caused an herald to bid them stand to their defence; for that not one of them should be spared, since they had rejected his last offers of pardon. Immediately after this, he abandoned

Jews. doned the city to the fury of the soldiers, who fell forthwith on plundering, setting fire everywhere, and murdering all that fell into their hands; whilst the factious, who were left, went and fortified themselves in the royal palace, where they killed 8000 Jews who had taken refuge there.

In the mean time, great preparations were making for a vigorous attack on the upper city, especially on the royal palace; and this took them up from the 20th of August to the 7th of September, during which time great numbers came and made their submission to Titus. The warlike engines then played so furiously on the factious, that they were taken with a sudden panic; and instead of fleeing to the towers of Hippicos, Phasael, or Mariamne, which were yet untaken, and so strong that nothing but famine could have reduced them, they ran like madmen towards Siloah, with a design to have attacked the wall of circumvallation, and to have escaped out of the city; but, being there repulsed, they were forced to go and hide themselves in the public sinks and common sewers, some one way and some another. All whom the Romans could find were put to the sword, and the city was set on fire. This was on the eighth of September, when the city was taken and entered by Titus. He would have put an end to the massacre; but his men killed all, except the most vigorous, whom they shut up in the porch of the women just mentioned. Fronto, who had the care of them, reserved the youngest and most beautiful for Titus's triumph; and sent all that were above seventeen years of age into Egypt, to be employed in some public works there; and a great number of others were sent into several cities of Syria, and other provinces, to be exposed on the public theatre, to exhibit fights, or be devoured by wild beasts. The number of those prisoners amounted to 97,000, besides about 11,000 more, who were either starved through neglect, or starved themselves through sullenness and despair.—The whole number of Jews who perished in this war is computed at upwards of 1,400,000.

Besides these, however, a vast number perished in caves, woods, wildernesses, common-sewers, &c. of whom no computation could be made. Whilst the soldiers were still busy in burning the remains of the city, and visiting all the hiding-places, where they killed numbers of poor creatures who had endeavoured to evade their cruelty, the two grand rebels Simon and John were found, and reserved for the triumph of the conqueror. John, being pinched with hunger, soon came out; and having begged his life, obtained it; but was condemned to perpetual imprisonment. Simon, whose retreat had been better stored, held out till the end of October. The two chiefs, with 700 of the handsomest Jewish captives, were made to attend the triumphal chariot; after which Simon was dragged through the streets with a rope about his neck, severely scourged, and then put to death; and John was sent into perpetual imprisonment.—Three castles still remained untaken, namely, Herodion, Machæron, and Massada. The two former capitulated; but Massada held out. The place was exceedingly strong both by nature and art, well stored with all kinds of provisions, and defended by a numerous garrison of zealots, at the head of whom was one Eleazar, the grandson of Judas Gaulonites, formerly mentioned. The Roman general having in vain tried his engines and battering-rams against it, bethought himself of surrounding it with a high and strong wall, and then ordered the gates to be set on fire. The wind pushed the flames so fiercely against the Jews, that Eleazar in despair persuaded them first to kill their wives and children, and then to choose ten men by lot, who should kill all the rest; and lastly one out of the surviving ten to dispatch them and himself; only this last man was ordered to set fire to the place before he put an end to his own life. All this was accordingly done; and on the morrow, when the Romans were preparing to scale the walls, they were greatly surprised neither to see nor hear any thing move. On this they made such an hideous outcry, that two women, who had concealed themselves in an aqueduct, came forth and acquainted them with the desperate catastrophe of the besieged.

49 Simon and John taken.

50 Desperate end of the garrison of Massada.

Jews, Jezides.

51 State of the Jews since the destruction of their city.

Thus ended the Jewish nation and worship; nor have they ever since been able to regain the smallest footing in the country of Judea, nor indeed in any other country on earth, though there is scarce any part of the globe where they are not to be found. They continue their vain expectations of a Messiah to deliver them from the low estate into which they are fallen; and, notwithstanding their repeated disappointments, there are few who can ever be persuaded to embrace Christianity. Their ceremonies and religious worship ought to be taken from the law of Moses; but they have added a multitude of absurdities not worth the inquiring after. In many countries, and in different ages, they have been terribly massacred, and in general have been better treated by the Mahometans and Pagans than by Christians. Since the revival of arts and learning, however, they have felt the benefit of that increase of humanity which has diffused itself almost over the globe. It is said, that in this country the life of a Jew was formerly at the disposal of the chief lord where he lived, and likewise all his goods. So strong also were popular prejudices and suspicions against them, that in the year 1348, a fatal endemic distemper raging in a great part of Europe, it was said that they had poisoned the springs and wells; in consequence of which a million and a half of them were cruelly massacred. In 1492, half a million of them were driven out of Spain, and 150,000 from Portugal. Edward I. did the same. In short, they were everywhere persecuted, oppressed, and most rigorously treated.

In this enlightened period a more generous system is followed. France has allowed them the rights of citizens which induces numbers of the most wealthy Jews to fix their residence in that country. Poland granted them very great privileges and immunities; England, Holland, and Prussia tolerate and protect them; and the emperor has revoked some restrictions, for which an edict was passed: Spain, Portugal, and some of the Italian states, are still, however, it is said, averse to their dwelling among them.

JEZIDES, among the Mahometans; a term of similar import with heretics among Christians.

The Jezides are a numerous sect inhabiting Turkey and

Jezides || Iglaw.

and Persia, so called from their head Jezid, an Arabian prince, who slew the sons of Ali, Mahomet's father in law; for which reason he is reckoned a parricide, and his followers heretics. There are about 20,000 Jezides in Turkey and Persia; who are of two sorts, black and white. The white are clad like Turks; and distinguished only by their shirts, which are not slit at the neck like those of others, but have only a round hole to thrust their heads through. This is in memory of a golden ring, or circle of light, which descended from heaven upon the neck of their cheq, the head of their religion, after his undergoing a fast of forty days. The black Jezides, though married, are the monks or religious of the order; and these are called *Fakirs*.

The Turks exact excessive taxes from the Jezides, who hate the Turks as their mortal enemies; and when, in their wrath, they curse any creature, they call it *mussulman*: but they are great lovers of the Christians, being more fond of Jesus Christ than of Mahomet, and are never circumcised but when they are forced to it. They are extremely ignorant, and believe both the bible and the koran without reading either of them: they make vows and pilgrimages, but have no places of religious worship.

All the adoration they pay to God consists of some songs in honour of Jesus Christ, the virgin, Moses, and sometimes Mahomet; and it is a principal point of their religion never to speak ill of the devil, lest he should resent the injury, if ever he should come to be in favour with God again, which they think possible; whenever they speak of him, they call him the *angel Peacock*. They bury their dead in the first place they come at, rejoicing as at a festival, and celebrating the entry of the deceased into heaven. They go in companies like the Arabians, and change their habitations every 15 days. When they get wine, they drink it to excess; and it is said, that they sometimes do this with a religious purpose, calling it the blood of Christ. They buy their wives; and the market-price is 200 crowns for all women, handsome or not, without distinction.

JEZRAEL, or JEZREEL, a town in the north of Samaria, towards Mount Carmel, where stood a palace of the kings of Israel, (1 Kings xxi. 18.). On the borders of Galilee (Joshua xix.) said to be one of the towns of Issachar.—The valley of Jezreel (Judges vi. 17.) was situated to the north of the town, running from west to east for ten miles, between two mountains; the one to the north, commonly called *Hermon*, near Mount Tabor; the other *Gilboa*: in breadth two miles.

IF, an island of France, in Provence, and the most eastern of the three before the harbour of Marseilles. It is very well fortified, and its port one of the best in the Mediterranean.

IGIS, a town of the country of the Grisons, in Caddea, with a magnificent castle, in which is a cabinet of curiosities, and a handsome library; 23 miles south-west of Choira, and 23 south of Glaris. E. Long. 9. 0. N. Lat. 49. 10.

IGLAW, a considerable and populous town of Germany, in Moravia, where they have a manufactory of good cloth, and excellent beer. It is seated on the river Igla, 40 miles west of Brin, and 62 south-east of Prague. E. Long. 15. 42. N. Lat. 47. 8.

Iglaw || Ignatius.

IGNATIA, a genus of plants, belonging to the pentandria class. See BOTANY *Index*.

IGNATIUS LOYOLA, (canonized), the founder of the well-known order of the JESUITS, was born at the castle of Loyola, in Biscay, 1491; and became first page to Ferdinand V. king of Spain, and then an officer in his army. In this last capacity, he signalized himself by his valour; and was wounded in both legs at the siege of Pampeluna, in 1521. To this circumstance the Jesuits owe their origin; for, while he was under cure of his wound, a *Life of the Saints* was put into his hands, which determined him to forsake the military for the ecclesiastical profession. His first devout exercise was to dedicate himself to the blessed virgin as her knight: he then went a pilgrimage to the Holy Land; and on his return to Europe, he continued his theological studies in the universities of Spain, though he was then 33 years of age. After this he went to Paris; and in France laid the foundation of this new order, the institutes of which he presented to Pope Paul III. who made many objections to them, but at last in 1540 confirmed the institution. The founder died in 1555, and left his disciples two famous books; 1. Spiritual exercises; 2. Constitutions or rules of the order. But it must be remembered, that though these avowed institutes contain many privileges obnoxious to the welfare of society, the most diabolical are contained in the private rules, intitled *Monita secreta*, which were not discovered till towards the close of the last century; and most writers attribute these, and even the Constitutions, to Laynez, the second general of the order.

IGNATIUS, *St*, surnamed *Theophrastus*, one of the apostolical fathers of the church, was born in Syria, and educated under the apostle and evangelist St John, and intimately acquainted with some other of the apostles, especially St Peter and St Paul. Being fully instructed in the doctrines of Christianity, he was, for his eminent parts and piety, ordained by St John, and confirmed about the year 67 bishop of Antioch, by these two apostles, who first planted Christianity in that city, where the disciples also were first called *Christians*. Antioch was then not only the metropolis of Syria, but a city the most famous and renowned of any in the east, and the ancient seat of the Roman emperors, as well as of the viceroys and governors. In this important seat he continued to sit somewhat above 40 years, both an honour and safeguard of the Christian religion, till the year 107, when Trajan the emperor, flushed with a victory which he had lately obtained over the Scythians and Daci, about the ninth year of his reign, came to Antioch to make preparations for a war against the Parthians and Armenians. He entered the city with the pomp and solemnities of a triumph; and, as his first care usually was about the concernments of religion, he began presently to inquire into that affair. Christianity had by this time made such a progress, that the Romans grew jealous and uneasy at it. This prince, therefore, had already commenced a persecution against the Christians in other parts of the empire, which he now resolved to carry on here. However, as he was naturally of a

Ignatius. mild disposition, though he ordered the laws to be put in force against them if convicted, yet he forbade them to be sought after.

In this state of affairs, Ignatius, thinking it more prudent to go himself than stay to be sent for, of his own accord presented himself to the emperor; and, it is said, there passed a long and particular discourse between them, wherein the emperor expressing a surprise how he dared to trangress the laws, the bishop took the opportunity to assert his own innocency, and to explain and vindicate his faith and freedom. The issue of this was, that he was cast into prison, and this sentence passed upon him, That, being incurably overrun with superstition, he should be carried bound by soldiers to Rome, and there thrown as a prey to wild beasts.

He was first conducted to Seleucia, a port of Syria, at about 16 miles distance, the place where Paul and Barnabas set sail for Cyprus. Arriving at Smyrna in Ionia, he went to visit Polycarp bishop of that place, and was himself visited by the clergy of the Asian churches round the country. In return for that kindness, he wrote letters to several churches, as the Ephesians, Magnesians, and Trallians, besides the Romans, for their instruction and establishment in the faith; one of these was addressed to the Christians at Rome, to acquaint them with his present state, and passionate desire not to be hindered in the course of martyrdom which he was now hastening to accomplish.

His guard, a little impatient of their stay, set sail with him for Troas, a noted city of the lesser Phrygia, not far from the ruins of old Troy; where, at his arrival, he was much refreshed with the news he received of the persecution ceasing in the church of Antioch: hither also several churches sent their messengers to pay their respects to him; and hence too he dispatched two epistles, one to the church of Philadelphia, and the other to that of Smyrna; and, together with this last, as Eusebius relates, he wrote privately to Polycarp, recommending to him the care and inspection of the church of Antioch.

From Troas they sailed to Neapolis, a maritime town in Macedonia; thence to Philippi, a Roman colony, where they were entertained with all imaginable kindness and courtesy, and conducted forwards on their journey, passing on foot through Macedonia and Epirus, till they came to Epidamnium, a city of Dalmatia: where again taking shipping, they sailed through the Adriatic, and arrived at Rhegium, a port-town in Italy; directing their course thence through the Tyrrhenian sea to Puteoli, whence Ignatius desired to proceed by land, ambitious to trace the same way by which St Paul went to Rome: but this wish was not complied with; and, after a stay of 24 hours, a prosperous wind quickly carried them to the Roman port, the great harbour and station for their navy, built near Ostia, at the mouth of the Tyber, about 16 miles from Rome; whither the martyr longed to come, as much desirous to be at the end of his race, as his keepers, weary of their voyage, were to be at the end of their journey.

The Christians at Rome, daily expecting his arrival, were come out to meet and entertain him, and accordingly received him with a mixture of joy and sorrow; but when some of them intimated, that possibly the populace might be taken off from desiring his death, he expressed a pious indignation, intreating them to cast no rubs in his way, nor do any thing that might hinder him, now he was hastening to his crown. There are many such expressions as this in his epistle to the Romans, which plainly show that he was highly ambitious of the crown of martyrdom. Yet it does not appear that he rashly sought or provoked danger. Among other expressions of his ardour for suffering, he said, that the wild beasts had feared and refused to touch some that had been thrown to them, which he hoped would not happen to him. Being conducted to Rome, he was presented to the præfect, and the emperor's letters probably delivered concerning him. The interval before his martyrdom was spent in prayers for the peace and prosperity of the church. That his punishment might be the more pompous and public, one of their solemn festivals, the time of their Saturnalia, and that part of it when they celebrated their Sigillaria, was pitched on for his execution; at which time it was their custom to entertain the people with the bloody conflicts of gladiators, and the hunting and fighting with wild beasts. Accordingly, on the 13th kal. January, i. e. December 20. he was brought out into the amphitheatre, and the lions being let loose upon him, quickly dispatched their meal, leaving nothing but a few of the hardest of his bones. These remains were gathered up by two deacons who had been the companions of his journey; and being transported to Antioch, were interred in the cemetery, without the gate that leads to Daphne; whence, by the command of the emperor Theodosius, they were removed with great pomp and solemnity to the Tycheon, a temple within the city, dedicated to the public genius of it, but now consecrated to the memory of the martyr. Ignatius, Ignis-fatuus.

St Ignatius stands at the head of those Antinicene fathers, who have occasionally delivered their opinions in defence of the true divinity of Christ, whom he calls the *Son of God, and his eternal word.* He is also reckoned the great champion of the doctrine of the episcopal order, as distinct and superior to that of priest and deacon. And one, the most important, use of his writings respects the authenticity of the Holy Scriptures, which he frequently alludes to, in the very expressions as they stand at this day.—Archbishop Usher's edition of his works, printed in 1647, is thought the best: yet there is a fresher edition extant at Amsterdam, where, besides the best notes, there are the dissertations of Usher and Pearson.

St Ignatius's Bean, the fruit of a plant. See Ignatia, Botany *Index.*

IGNIS-FATUUS, a kind of light, supposed to be of an electric nature, appearing frequently in mines, marshy places, and near stagnating waters. It was formerly thought, and is still by the superstitious believed, to have something ominous in its nature, and to presage death and other misfortunes. There have been instances of people being decoyed by these lights into marshy places, where they have perished; whence the names of *Ignis-fatuus*, *Will-with-a-wisp*, and *Jack-with-a-lanthorn*, as if this appearance were an evil spirit which took delight in doing mischief of that kind. The general opinion is, that this light is owing to the decomposition of animal or vegetable matters,

Ignis-fatuus ‖ Ignorance.

ters, or to the evolution of gases which spontaneously inflame in the atmosphere.

IGNITION, properly signifies the setting fire to any substance; the sense is sometimes limited to that kind of burning which is not accompanied with flame, such as that of charcoal, cinders, metals, stones, and other solid substances. The effects of ignition, according to the old chemical doctrine, are first to dissipate what is called the *phlogiston* of the ignited substance, after which it is reduced to ashes. Vitrification next follows; and, lastly, the substance is totally dissipated in vapour. All these effects, however, depend on the presence of the air; for *in vacuo* the phlogiston of any substance cannot be dissipated. Neither can a body which is totally destitute of phlogiston be ignited in such a manner as those which are not deprived of it: for as long as the phlogiston remains, the heat is kept up in the body by the action of the external air upon it; but when the phlogiston is totally gone, the air always destroys, instead of augmenting, the heat. But for the explanation of the phenomena of ignition, according to the views of modern chemistry, see COMBUSTION, CHEMISTRY *Index*.

IGNOBILES, amongst the Romans, was the designation of such persons as had no right of using pictures and statues. See *Jus Imaginis*.

IGNOMINIA, a species of punishment amongst the Romans, whereby the offender suffered public shame, either by virtue of the prætor's edict, or by order of the censor. This punishment, besides the scandal, deprived the party of the privilege of bearing any offices, and almost all other liberties of a Roman citizen.

IGNORAMUS, in *Law*, is a word properly used by the grand inquest empannelled in the inquisition of causes criminal and public, and written upon the bill, whereby any crime is offered to their consideration, when, as they mislike their evidence as defective or too weak to make good the presentment; the effect of which word so written is, that all farther inquiry upon that party for that fault is thereby stopped, and he delivered without farther answer. It hath a resemblance with that custom of the ancient Romans, where the judges, when they absolved a person accused, did write *A.* upon a little table provided for that purpose, i. e. *absolvimus;* if they judged him guilty, they wrote *C.* i. e. *condemnamus;* if they found the cause difficult and doubtful, they wrote *N. L.* i. e. *non liquet*.

IGNORANCE, the privation or absence of knowledge. The causes of ignorance, according to Locke, are chiefly these three. 1. Want of ideas. 2. Want of a discoverable connexion between the ideas we have. 3. Want of tracing and examining our ideas. See METAPHYSICS.

IGNORANCE, in a more particular sense, is used to denote illiteracy. Previous to the taking of Rome by the Gauls, such gross ignorance prevailed among the Romans that few of the citizens could read or write, and the alphabet was almost unknown. During three ages there were no public schools, but the little learning their children had was taught them by their parents; and how little that was may be partly concluded from this circumstance, that a nail was annually driven into the wall of the temple of *Jupiter Capitolinus*, on the 15th of September, to assist the ignorance of the people in reckoning the years, because they were unacquainted with letters or figures. The driving of the nail was afterwards converted into a religious ceremony, and performed by the *dictator*, to avert public calamities.

Ignorance ‖ Jibbel.

IGNORANCE, or mistake, in *Law*, a defect of will, whereby a person is excused from the guilt of a crime, when, intending to do a lawful act, he does that which is unlawful. For here the deed and the will acting separately, there is not that conjunction between them which is necessary to form a criminal act. But this must be an ignorance or mistake of fact, and not an error in point of law. As if a man intending to kill a thief or house-breaker in his own house, by mistake kills one of his own family, this is no criminal action: but if a man thinks he has a right to kill a person excommunicated or outlawed wherever he meets him, and does so; this is wilful murder. For a mistake in point of law, which every person of discretion not only may, but is bound and presumed to know, is, in criminal cases, no sort of defence. *Ignorantia juris quod quisque tenetur scire, neminem excusat*, is as well the maxim of our own law as it was of the Roman.

IGUANA, a species of LACERTA. See ERPETOLOGY *Index*.

Mud IGUANA, a species of fish. See MURÆNA, ICHTHYOLOGY *Index*.

IHOR, JOHOR, or *Jor*, a town of Asia, in Malacca, and capital of a province of the same name in the peninsula beyond the Ganges. It was taken by the Portuguese in 1603, who destroyed it, and carried off the cannon; but it has since been rebuilt, and was afterwards in possession of the Dutch. E. Long. 93. 55. N. Lat. 1. 15.

JIB, the foremost sail of a ship, being a large stay-sail extended from the outer end of the bowsprit prolonged by the jib-boom, towards the fore-top mast head. See SAIL.

The jib is a sail of great command with any side-wind, but especially when the ship is *close hauled*, or has the wind upon her beam; and its effort in *casting* the ship, or turning her head to leeward, is very powerful and of great utility, particularly when the ship is working through a narrow channel.

JIB-Boom, a boom run out from the extremity of the bowsprit, parallel to its length, and serving to extend the bottom of the jib, and the stay of the fore-top-gallant mast. This boom, which is nothing more than a continuation of the bowsprit forward, to which it may be considered as a top-mast, is usually attached to the bowsprit, by means of two large boom-irons, or by one boom-iron, and a cap on the outer end of the bowsprit; or, finally, by the cap without and a strong lashing within, instead of a boom-iron, which is generally the method of securing it in small merchant ships. It may therefore be drawn in upon the bowsprit as occasion requires; which is usually practised when the ship enters a harbour, where it might very soon be broken or carried away, by the vessels which are moored therein, or passing by under sail.

JIBBEL or GEBBEL AUREY, the Mons Aurasius of the middle age, an assemblage of many very rocky mountains in Africa, in the kingdom of Algiers. Here Mr Bruce met with a race of people much fairer in the complexion than any of the nations to the southward of Britain: their hair was red, and their eyes blue: they maintain

Jibbel Aurey, Jidga.

maintain their independence, and are of a savage disposition, so that our traveller found it difficult to approach them with safety. They are called Neardia; and each of them has a Greek cross in the middle between the eyes, marked with antimony. They are divided into tribes, but, unlike the other Arabs, have huts in the mountains built of mud and straw; and are, by our author, supposed to be a remnant of the Vandals. He even thinks that they may be descended from the remainder of an army of Vandals mentioned by Procopius, which was defeated among these mountains. They live in perpetual war with the Moors, and boast that their ancestors were Christians. They pay no taxes.

JIDDA, a town of Arabia, situated, according to Mr Bruce, in N. Lat. 28° 0′ 1″, E. Long. 39° 16′ 55″, while others make it 21° 28′, and E. Long. 39° 22′. It is situated in a very unwholesome, barren, and desert part of the country. Immediately without the gate to the eastward is a desert plain filled with the huts of the Bedoweens or country Arabs, built of long bundles of spartum or bent-grass put together like fascines. These people supply the town with milk and butter. "There is no stirring out of the town (says Mr Bruce) even for a walk, unless for about half a mile on the south side by the sea, where there is a number of stinking pools of stagnant water, which contributes to make the town very unwholesome."

From the disagreeable and inconvenient situation of this port, it is probable, that it would have been long ago abandoned, had it not been for its vicinity to Mecca, and the vast annual influx of wealth occasioned by the India trade; which, however, does not continue, but passes on to Mecca, whence it is dispersed all over the east. The town of Jidda itself receives but little advantage, for all the customs are immediately sent to the needy and rapacious sheriff of Mecca and his dependents. "The gold (says Mr Bruce) is returned in bags and boxes, and passes on as rapidly to the ships as the goods do to the market, and leaves as little profit behind. In the mean time provisions rise to a prodigious price, and this falls upon the townsmen, while all the profit of the traffic is in the hands of strangers; most of whom, after the market is over (which does not last six weeks) retire to Yemen and other neighbouring countries, which abound in every sort of provision."

From this scarcity, Mr Bruce supposes it is, that polygamy is less common here than in any other part of Arabia. "Few of the inhabitants of Jidda (says our author) can avail themselves of the privilege granted by Mahomet. He cannot marry more than one wife, because he cannot maintain more; and from this cause arises the want of people and the number of unmarried women."

The trade at Jidda is carried on in a manner which appeared very strange to our traveller. "Nine ships (says he) were there from India; some of them worth I suppose 200,000l. One merchant, a Turk, living at Mecca, 30 hours journey off, where no Christian dares go, whilst the continent is open to the Turk for escape, offers to purchase the cargoes of four out of these nine ships himself; another of the same cast comes and says he will buy none unless he has them all. The samples are shown, and the cargoes of the whole nine ships are carried into the wildest parts of Arabia by men with whom one would not wish to trust himself alone in the field. This is not all; two India brokers come into the room to settle the price; one on the part of the India captain, the other on that of the buyer the Turk. They are neither Mahometans nor Christians, but have credit with both. They sit down on the carpet, and take an India shawl which they carry on their shoulder like a napkin, and spread it over their hands. They talk in the mean time indifferent conversation, as if they were employed in no serious business whatever. After about 20 minutes spent in handling each others fingers below the shawl, the bargain is concluded, say for nine ships, without one word ever having been spoken on the subject, or pen or ink used in any shape whatever. There never was one instance of a dispute happening in these sales. But this is not all; the money is yet to be paid. A private Moor, who has nothing to support him but his character, becomes responsible for the payment of these cargoes. This man delivers a number of coarse hempen bags full of what is supposed to be money. He marks the contents upon the bag, and puts his seal upon the string that ties the mouth of it. This is received for what is marked upon it without any one ever having opened one of the bags; and in India it is current for the value marked upon it as long as the bag lasts.

Jidda, Jig.

The port of Jidda is very extensive, and contains numberless shoals, small islands, and sunk rocks, with deep channels, however, between them; but in the harbour itself ships may ride secure, whatever wind blows. The only danger is in the coming in or going out; but as the pilots are very skilful, accidents are never known to happen. The charts of this harbour, as Mr Bruce informs us, are exceedingly erroneous. While he staid here, he was desired by Captain Thornhill to make a new chart of the harbour; but finding that it had been undertaken by another gentleman, Captain Newland, he dropped it. He argues in the strongest terms against the old maps, which he says can be of no use, but the contrary; and he gives it as a characteristic of the Red sea, "scarce to have soundings in any part of the channel, and often on both sides; whilst ashore, soundings are hardly found a boat length from the main. To this, says he, I will add, that there is scarce one island on which I ever was, where the bowsprit was not over the land, while there were no soundings by a line heaved over the stern. Of all the vessels in Jidda, only two had their log-lines properly divided, and yet all were so fond of their supposed accuracy, as to aver they had kept their course within five leagues between India and Babelmandel. Yet they had made no estimation of the currents without the straits, nor the different very strong ones soon after passing Socotra; their half-minute glasses, upon a medium, ran 57 seconds; they had made no observations on the tides or currents in the Red sea, either in the channel or in the inward passage; yet there is delineated in this map a course of Captain Newland's, which he kept in the middle of the channel, full of sharp angles and short stretches; you would think every yard was measured and sounded!"

JIG. See Music, N° 252.

JILLIFREE,

Jillifree || Ila.

JILLIFREE, a town on the northern bank of the river Gambia, opposite to James's island, where the English had formerly a small port. The kingdom of Barra, in which it is situated, produces abundance of the necessaries of life; but the chief trade of the inhabitants is in salt, which they carry up the river in canoes; and, in return, bring down Indian corn, cotton-cloths, elephants teeth, small quantities of gold dust, &c. The number of canoes and people continually employed in this trade, make the king of Barra, according to Mr Park, more formidable to Europeans, than any other chieftain on the river, and have encouraged him to establish those extravagant duties, which traders of all nations are obliged to pay at entry, amounting almost to 20l. on each vessel, great and small. These duties are commonly collected in person by the governor of Jillifree, who is attended by a troublesome train of dependants, who have some knowledge of the English language, in consequence of their intercourse with them, and beg with such importunity, that traders are often under the necessity of complying with their demands, in order to get rid of them. N. Lat. 13. 16. W. Long. 16. 10. from Greenwich.

JIN. See GENII.

IKENILD STREET, one of the four famous ways which the Romans made in England, called *Stratum Icenorum*, because it began in the country of the *Iceni*, who inhabited Norfolk, Suffolk, and Cambridgeshire.

ILA, ILAY, or *Isla*, one of the chief of the Hebrides or Western isles of Scotland, lying to the west of Jura, from which it is separated by a narrow channel. It extends 24 miles in length from north to south, and is 18 in breadth from east to west. On the east side there are many lofty sterile mountains; but in the interior, and to the southward and westward, the land is in good cultivation. A great body of limestone of a bluish colour, lying in the middle part of the island, stretches almost through its whole length, and is now extensively employed for the purposes of manure. Marl, which is also abundant, is applied to the same use. Lead-ore has been dug out in several places, and at so early a period as the time of the Danes. The principal harbour in Isla is at Lochindaal, but there are several others which are safe and commodious. Here are several rivers and lakes well stored with trout, eels and salmon. In the centre is Loch Finlagan, about three miles in circuit, with the little isle of that name in the middle. Here the great lord of the Isles once resided in all the pomp of royalty; but his palaces and offices are now in ruins. Instead of a throne, Macdonald stood on a stone seven feet square, in which there was an impression made to receive his feet; here he was crowned and anointed by the bishop of Argyle and seven inferior priests, in presence of the chieftains. This stone still exists. The ceremony (after the new lord had collected his kindred and vassals) was truly patriarchal. After putting on his armour, his helmet and his sword, he took an oath to rule as his ancestors had done; that is, to govern as a father would his children: his people in return swore that they would pay the same obedience to him as children would to their parent. The dominions of this potentate, about the year 1586, consisted only of Ilay, Jura, Knapdale, and Cantyre: so reduced were they from what they had been before the deprivation of the great earl of Ross in the reign of James III. Near this is another little isle, where he assembled his council, *Ilan na Corlle*, or "the island of council;" where 13 judges constantly sat to decide differences among his subjects; and received for their trouble the 11th part of the value of the affair tried before them. In the first island were buried the wives and children of the lords of the Isles; but their own persons were deposited in the more sacred ground of Iona. On the shores of the lake are some marks of the quarters of his *Carnauch* and *Gilli-glasses*, "the military of the isles;" the first signifying a strong man, the last a grim-looking fellow. The first were light-armed, and fought with darts and daggers; the last with sharp batchets. These are the troops that Shakespeare alludes to, when he speaks of a Donald, who

———From the Western isles
Of Kernes and Gallow-glasses was supplied.

Ila.

Besides those already mentioned, the lords had a house and chapel at Lagan, on the south side of Lochindaal: a strong castle on a rock in the sea, at Dunowaik, at the south-east end of the country; for they made this island their residence after their expulsion from that of Man in 1304.—There is a tradition, that while the isle of Man was part of the kingdom of the Isles, the rents were for a time paid in this country: those in silver were paid on a rock, still called *Creig-a-nione*, or "the rock of the silver rent;" the other, *Creg-a-nairgid*, or "the rock of rents in kind." These lie opposite to each other, at the mouth of a harbour on the south side of this island. There are several forts built on the isles in fresh water lakes, and divers caverns in different parts of the island, which have been used occasionally as places of strength. The island is divided into four parishes, viz. Kildalton, Killarow, Kilchoman, and Kilmenie. The produce is corn of different kinds; such as bear, which sometimes yields eleven fold; and oats six fold. Much flax is raised here, and about 2000l. worth sold out of the island in yarn, which might better be manufactured on the spot, to give employ to the poor natives. Notwithstanding the excellence of the land, above 1000l. worth of meal is annually imported (A). Ale is frequently made in this island of the young tops of heath, mixing two-thirds of that plant with one of malt, sometimes adding hops. Boethius relates, that this liquor was much used among the Picts; but when that nation was extirpated by the Scots, the secret of making it perished with them. Numbers of cattle are bred here, and about 1700 are annually exported at the

(A) This might have been the case in the time of Pennant, from whom the above account is taken. It is not so now, although the population has increased to nearly 12,000. Isla indeed enjoys the peculiar advantages of being not only a grazing but a corn country, and can thus afford a very considerable exportation of both species of produce. The number of cattle now exported far exceeds that stated above by Pennant.

Ila. the price of 50 shillings each. The island is often overstocked, and numbers die in March for want of fodder. None but milch-cows are housed: cattle of all other kinds, except the saddle-horses, run out during winter.

The number of inhabitants, when Islay was visited by Pennant, is computed to have been between seven and eight thousand. About 700, says he, are employed in the mines and in the fishery: the rest are gentleman-farmers, and subtenants or servants. The women spin. The servants are paid in kind; the sixth part of the crop. They have houses gratis; the master gives them the seed for the first year, and lends them horses to plough annually the land annexed.

The quadrupeds of this island, as enumerated by Mr Pennant*, are stots, weesels, otters, and hares: the last small, dark-coloured, and bad runners. The birds are eagles, peregrine falcons, black and red game, and a very few ptarmigans. Red-breasted goosanders breed on the shore among the loose stones, wild geese in the moors, and herons in the island in Loch-guirm. The fish are plaise, smeardab, large dabs, mullets, ballan, lump-fish, black goby, greater dragonet, and that rare fish the lepadogaster of M. Gouan. Vipers swarm in the heath: the natives retain the vulgar error of their stinging with their forked tongues (B); that a sword on which the poison has fallen will hiss in water like a red-hot iron; and that a poultice of human ordure is an infallible cure for the bite.

* *Voyage to the Hebrides*, ii.

In this island, Mr Pennant informs us, several ancient diversions and superstitions are still preserved: the last indeed are almost extinct, or at most lurk only amongst the very meanest of the people. The late-wakes or funerals, like those of the Romans, were attended with sports, and dramatic entertainments composed of many parts, and the actors often changed their dresses suitably to their characters. The subject of the drama was historical, and preserved by memory.—The power of fascination is as strongly believed here as it was by the shepherds of Italy in times of old.

Nescio quis teneros oculis mihi fascinat agnos?

But here the power of the evil eye affects more the milch-cows than lambs. If the good housewife perceives the effect of the malicious on any of her kine, she takes as much milk as she can drain from the enchanted herd (for the witch commonly leaves very little). She then boils it with certain herbs, and adds to them flints and untempered steel; after that she secures the door, and invokes the three sacred persons. This puts the witch into such an agony, that she comes nilling-willing to the house, begs to be admitted, to obtain relief by touching the powerful pot: the good woman then makes her terms; the witch restores the milk to the cattle, and in return is freed from her pains. But sometimes, to save the trouble of those charms (for it may happen that the disorder may arise from other causes than an evil-eye), the trial is made by immerging in milk a certain herb, and if the cows are supernaturally affected, it instantly distils blood. The unsuccessful lover revenges himself on his happy rival by charms potent as those of the shepherd Alphesibæus, and exactly similar:

Necte tribus nodis ternos, Amarylli, colores:
Necte, Amarylli, modo.

Ila, Ilchester.

Donald takes three threads of different hues, and ties three knots on each, three times imprecating the most cruel disappointments on the nuptial bed: but the bridegroom, to avert the harm, stands at the altar with an untied shoe, and puts a sixpence beneath his foot.

History furnishes very few materials for the great events or revolutions of Ilay. It seems to have been long a seat of empire, probably jointly with the isle of Man, as being most conveniently situated for the government of the rest of the Hebrides; for Crovan the Norwegian, after his conquest of that island in 1066, retired and finished his days in Ilay. There are more Danish or Norwegian names of places in this island than any other: almost all the present farms derive their titles from them; such as Persibus, Torridale, Torribolse, and the like. On the retreat of the Danes it became the seat of their successors the lords of the isles; and continued, after their power was broken, in the reign of James III. in their descendants the Macdonalds, who held or ought to have held it from the crown. It was in the possession of a Sir James Macdonald, in the year 1598, the same who won the battle of Traii-dhruinard. His power gave umbrage to James VI. who directed the lord of Macleod, Cameron of Lochiel, and the Macneiles of Barra, to support the Macleans in another invasion. The rival parties met near the hill of Benbigger, east of Killarow; a fierce engagement ensued, and the Macdonalds were defeated and almost entirely cut off. Sir James escaped to Spain; but returned in 1620, was pardoned, received a pension, and died the same year at Glasgow; and in him expired the last of the great Macdonalds. But the king, irritated by the disturbances raised by private wars waged between these and other clans, resumed the grant made by his predecessor, and transferred it to Sir John Campbell of Calder, who held it on paying an annual feu-duty of five hundred pounds sterling, which is paid to this day. The island was granted to Sir John as a reward for his undertaking the conquest: but the family considered it as a dear acquisition, by the loss of many gallant followers, and by the expences incurred in support of it.

ILCHESTER, a town of Somersetshire in England, seated on the river Yeovil, 129 miles from London, is so called, because it once had a castle, and stands on the river Ivel. It is a place of great antiquity, as appears by the Roman coins which are sometimes dug up. It is likewise evident, from the ruins and from two towers on the bridge, that it was once a large place, and encompassed with a double wall. It also had several parish-churches, though now but one. It is governed by two bailiffs, who with the twelve burgesses are lords of the manor. In the reign of Edward III, the assizes for the county were fixed here, which have since been held

(B) This vulgar error is by no means limited to the natives of Islay.

Ilchester, Ildefonso.

held alternately at Wells, Taunton, and Bridgewater. The knights of the shire are always chosen here, and it is the place for the county courts and jail. On the latter is its chief dependence, and therefore it cannot be very polite. It is noted for being the birth-place of Roger the famous Friar Bacon. Ilchester is an earldom in the Fox family.

ILDEFONSO, St, a celebrated royal residence of Spain, distant about two miles from Segovia. It was erected by Philip V. in the midst of a solitary wood, and in the bosom of steep mountains. It is chiefly remarkable for its gardens. There is nothing magnificent in the palace, particularly in its exterior appearance. The front on the side of the garden is of the Corinthian order, and not destitute of elegance. Here are the king's apartments, which look upon a parterre surrounded with vases and marble statues, and a cascade which, for the richness of its decorations, may be compared with the finest of the kind.

The purity and clearness of the water is indeed incomparable. Philip V. could not, in this respect, be better served by nature. From the mountains which shade the palace descend several rivulets, which supply the reservoirs. These waters answer the double purpose of supplying numerous fountains, and of diffusing life and verdure through the magnificent gardens, the sight of which alone is a sufficient recompense for a journey into Spain. They are on the inside a league in circumference. The inequality of the ground affords every moment new points of view. The principal alleys answer to different summits of neighbouring mountains; and one in particular produces the most agreeable effect. It is terminated at one end by the grand front of the palace. From this point are seen, at one view, five fountains, ornamented with elegant groups, rising into an amphitheatre, above which appear the summits of lofty mountains. The most elevated of these groups is that of Andromeda fastened to a rock. When seen at a little distance it is perhaps defective, because the ruck appears too diminutive by the side of the monster which threatens Andromeda, and of Perseus, by whom it is attacked; but the whole contributes to the beauty of the view. The most remarkable of the five groups is that of Neptune.

† *Travels in Spain*, i. 68.

"Genius (says M. Bourgoanne†) presided at the composition and in the choice of the situation; the deity of the ocean appears erect, surrounded by the marine court. His attitude, his threatening countenance, and the manner of holding his trident, announce that he has just imposed silence on the mutinous waves; and the calm which reigns in the bason, defended from every wind by the triple wall of verdure by which it is surrounded, seems to indicate that he has not issued his commands in vain. Often have I seated myself, with Virgil in my hand, by the side of this silent water, under the shade of the verdant foliage, nor ever did I fail to recollect the famous *Quos Ego!*

"There are other fountains worthy of the attention of the curious; such as that of Latona, where the limpid sheaves, some perpendicularly, and others in every direction, fall from the hoarse throats of the Lycian peasants, half transformed into frogs, and spouting them forth in such abundance, that the statue of the goddess disappears under the wide mantle of liquid crystal; that also of Diana in the bath, surrounded by her nymphs; in the twinkling of an eye all the chaste court is hidden beneath the waters; the spectator imagines he hears the whistling of aquatic birds, and the roaring of lions, from the place whence this momentary deluge escapes by a hundred canals. The fountain of Fame is formed by a single jet-d'eau, which rises 130 feet, exhibiting to the distance of several leagues round the triumph of art over nature, and falls in a gentle shower upon the gazing spectators. There are some situations in the gardens of St Ildefonso, whence the eye takes in the whole or the greater part of these fountains, and where the ear is delighted with the harmony of their murmurs. The traveller, who wishes to charm all his senses at once, must take his station on the high flat ground in front of the king's apartment. In the thick part of the foliage are contrived two large arbours, from the top of which are seen twenty crystal columns rising into the air to the height of the surrounding trees, mixing their resplendent whiteness with the verdure of the foliage, uniting their confused noise to the rustling of the branches, and refreshing and embalming the air: if the traveller here experience no pleasing sensations, let him return home: he is utterly incapable of feeling either the beauties of art or nature. Ildefonso.

"The reader may here imagine (continues our author) my enthusiasm too extravagant. He is mistaken; let him follow me to the great reservoir of abundant and limpid waters. He will have to climb for some minutes, but will not regret the trouble he has taken. Let us suppose ourselves arrived at the long and narrow alley which takes up the whole of the upper part of the gardens; proceed to the middle, and turn your face towards the castle. To the vast horizon around you, no other boundaries are discovered but those which limit the human sight; these alone prevent you from discovering the Pyrenees. Observe the steeple, which seems but a point in the immense extent: you will perhaps imagine it to be that of the parish-church of St Ildefonso; but, in reality, it is the cathedral of Segovia, at two leagues distance. The gardens, through which you have passed, become narrower to the eye. You suppose yourself close to the royal habitation; the alleys, fountains, and parterres, have all disappeared; you see but one road, which, in the form of a vessel, upon the prow of which you seem to stand, has its stern on the top of the palace. Afterward turn and take a view of the little lake behind you, of which the irregular borders do not, like what we call our English gardens, merely ape the disorder of nature. Nature herself has traced them, except on the side where you stand. This straight alley is united at each end to the curve which surrounds the reservoir. The waters, which stream in abundance from the sides of the mountain in front, meet in this reservoir, and thence descend by a thousand invisible tubes to other reservoirs, whence they are spouted in columns or sheets upon the flowery soil to which they were strangers. The birds, drawn by their clearness, come to skim and agitate their crystal. The image of the tufted woods which surround them is reflected from their immoveable surface, as is also that of some simple and rural houses, thrown as by accident into this delightful picture, which Lorrain would have imitated, but perhaps could not have imagined. The opposite bank is obscured

Ildefonso. secured by thick shade. Some hollows, overshadowed by arching trees, seem to be the asylums of the Naiades. Disturb them not by indiscreet loquacity, but silently admire and meditate.

"It is impossible, however, not to go to the source of these waters; let us follow the meandering of their course, and observe the winding paths which there terminate, after appearing and disappearing at intervals through the copse. Let us listen to the bubbling of the rivulets which from time to time escape from our sight, and hasten to the rendezvous assigned them by the descendants of Louis XIV. They formerly lost themselves in the valleys, where they quenched the thirst of their humble inhabitants, but are now consecrated to the pleasures of kings. Ascending the back of the pyramidical mountain, behind which their source is concealed, we arrive at the wall which confines a part of them in the garden, and which was hidden by the trees; nothing, however, ought here to recal to mind exclusive property and slavery. Woods, waters, and the majestic solitude of mountains, which are at a distance from the tumult of courts and cities, are the property of every man.—Beyond this wall, which forms the exterior enclosure of the gardens, is an empty and flat ground, where the infant Don Louis, brother to the king, chose a place which he consecrated to cultivation. Farther on, the mountain becomes more steep, and is covered with trees to its summit. Let us now return; as we seek amusement and not fatigue. We will follow the course of the waters; they descend in bubbling streams from one level of the gardens to the other. In their course, in one place they water the feet of the trees, in others they cross an alley to nourish more slowly the plants of a parterre. From the bason of Andromeda they run betwen two rows of trees in the form of a canal, the too sudden inclination of which is taken off by cascades and windings. They receive and carry with them from the gardens the rivulets; which after having played amongst the gods and nymphs, and moistened the throats of the swans, tritons, and lions, humbly descend under ground, and run on into the bosom of the neighbouring meadows, where they fulfil purposes less brilliant but more useful.

"We must not quit these magnificent gardens without stopping at a place which appears to promise much, but produces not any very great effect. This is the square of the eight alleys, *Plaça de las ocho calles*. In the centre is the group of Pandora, the only one which is of whitened stone, all the others are of white marble or lead painted of a bronze colour. Eight alleys answer to this centre, and each is terminated by a fountain. Plats of verdure fill up the intervals between the alleys, and each has an altar under a portico of white marble by the side of a bason sacred to some god or goddess. These eight altars, placed at equal distances, and decorated, among other jets-d'eau, have two which rise in the form of tapers on each side of their divinities. This cold regularity displeased Philip V. who a little before his death, when visiting the gardens, made some severe reproaches to the inventor upon the subject. Philip had not the pleasure of completely enjoying what he had created; death surprised him when the works he had begun were but half finished. The undertaking was however the most expensive one of his reign. The finances of Spain, so deranged under the princes of the house of Austria, (thanks to the wise calculations of Orry, to the subsidies of France, and still more to the courageous efforts of the faithful Castilians) would have been sufficient for three long and ruinous wars, and for all the operations of a monarchy which Philip V. had conquered and formed anew, as well as to have resisted the shocks of ambition and political intrigue; but they sunk beneath the expensive efforts of magnificence.

Ildefonso || Ilex

It is singular that the castle and gardens of St Ildefonso should have cost about 45,000,000 of piastres, precisely the sum in which Philip died indebted. This enormous expence will appear credible, when it is known that the situation of the royal palace was at the beginning of this century the sloping top of a pile of rocks: that it was necessary to dig and hew out the stones, and in several places to level the rock; to cut out of its sides a passage for a hundred different canals, to carry vegetative earth to every place in which it was intended to substitute cultivation for sterility, and to work a mine to clear a passage to the roots of the numerous trees which are there planted. All these efforts were crowned with success. In the orchards, kitchen-gardens, and parterres, there are but few flowers, espaliers, or plants, which do not thrive; but the trees, naturally of a lofty growth, and which consequently must strike their roots deep into the earth, already prove the insufficiency of art when it attempts to struggle against nature. Many of them languish with withered trunks, and with difficulty keep life in their almost naked branches. Every year it is necessary to call in the aid of gunpowder to make new beds for those which are to supply their place; and none of them are covered with that tufted foliage which belongs only to those that grow in a natural soil. In a word, there are in the groves of St Ildefonso, marble statues, basons, cascades, limpid waters, verdure, and delightful prospects, every thing but that which would be more charming than al the rest, thick shades.

The court of Spain comes hither annually during the heat of the dog days. It arrives towards the end of July, and returns at the beginning of October. The situation of St Ildefonso, upon the declivity of the mountains which separate the two Castiles, and fronting a vast plain where there is no obstacle to the passage of the north wind, renders this abode delightful in summer. The mornings and evenings of the hottest days are agreeably cool. Yet as this palace is upwards of 20 leagues from Madrid. and half of the road which leads to it crosses the broad tops of mountains, extremely steep in many places, it is much more agreeable to the lovers of the chase and solitude than to others.

ILERDA, in *Ancient Geography*, the capital of the Iligertes; situated on an eminence between the rivers Sicoris and Cinga: An unhappy city, often besieged, and often taken, because lying exposed to the incursions from Gaul; and under Gallienus it was destroyed by the Germans. Now Lerida, in Catalonia, on the river Segra.

ILEX, the Holm or *Holly-Tree*; a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 43d order, *Dumosæ*. See Botany *Index*.

ILFRACOMB,

Ilfracomb
Ilecebrum.

ILFRACOMB, a town of Devonshire, seated on the Severn sea, almost opposite to Swansea in Glamorganshire, 181 miles from London. It has a considerable trade, especially in herrings, which are caught in the Bristol-channel. It is noted for maintaining constant lights to direct the sailors; for its convenience of building and repairing ships; and for the safe shelter ships from Ireland find here, when it is extremely dangerous for them to run into the mouth of the Taw. It had a quay or pier 850 feet long; but by time and the violence of the sea all went to decay; to remedy which, the parliament passed an act in 1731, and in 1760 it was partly rebuilt, lengthened and enlarged. It is governed by a mayor, bailiffs, &c. and consists chiefly of one street of scattered houses almost a mile long. The number of inhabitants in 1811 is stated at 1934. W. Long. 3. 10. N. Lat. 51. 11.

ILIAC PASSION, a violent and dangerous kind of colic; called also *volvulus*, *miserere mei*, and *chordapsus*. It takes its name from the intestine *ilion*, on account of its being usually affected in this distemper; or perhaps from the Greek verb ειλειν, "to wind or twist;" whence also it is the Latins call it *volvulus*. See MEDICINE *Index*.

ILIAD, the name of an ancient epic poem, the first and finest of those composed by Homer.

The poet's design in the Iliad was to show the Greeks, who were divided into several little states, how much it was their interest to preserve a harmony and good understanding among themselves; for which end he sets before them the calamities that befel their ancestors from the wrath of Achilles, and his misunderstanding with Agamemnon; and the advantages that afterwards accrued to them from their union. The Iliad is divided into 24 books or rhapsodies, which are marked with the letters of the alphabet.

ILISSUS, a river running to the east of Athens; which, with the Eridanus running on the west side, falls below the city into the sea. Sacred to the muses, called *Iliassides*; on whose bank their altar stood, and where the lustration in the less mysteries was usually performed.

ILIUM, ILION, or *Ilios*, in *Ancient Geography*, a name for the city of Troy, but most commonly used by the poets, and distinguished by the epithet *Vetus*. According to Strabo, the ancient city was 30 stadia farther east than New Ilium. The position of the latter was discovered by Dr Clarke. It is upon a low eminence, about three miles from the promontory Sigeum, now called Jenitchere. New or modern Ilium was a village which Alexander, after the battle of Granicus, called a city, and ordered to be enlarged. His orders were executed by Lysimachus, who encompassed it with a wall of 40 stadia. It was afterwards adorned by the Romans, who granted it immunities as to their mother-city. From this city the *Ilias* of Homer takes its name. The various disasters of the Greeks and Trojans, as described by the poet, gave rise to the proverb *Ilias Malorum*.

ILKUCH, a town of Poland, in the palatinate of Cracow, remarkable for its mines of silver and lead. It is seated in a barren and mountainous country, in E. Long. 20. 0. N. Lat. 50. 26.

ILLECEBRUM, a genus of plants belonging to the pentandria class; and in the natural method ranking under the 12th order, *Holoraceæ*. See BOTANY *Index*.

ILLE AND VILAINE, a department in the north-west of France, comprising part of the ancient Britanny. It has some good pastures, but abounds in forests and heaths. Rennes is the chief town.

Ille
Illuminating.

ILLINOIS, one of the United States of the North American republic. It is bounded by the Mississippi on the west, the Ohio on the south, the Wabash on the east; and by a line passing along the parallel of 41° 30′ on the north. It contains about 58,000 square miles. The surface of the country is in general low and wooded, but fertile and well watered. The principal river entirely in the state is the Illinois, which rises near Lake Michigan, and after a course of 500 miles joins the Mississippi. The population in 1810 amounted only to 12,282; but it increased so rapidly, that in 1818 it was admitted into the union as an independent state.

ILLICIUM, a genus of plants belonging to the dodecandria class; and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*.

ILLUMINATI, the name of a secret society, or order in Germany and other countries of Europe, whose professed object, it is said, was to propagate the purest principles of virtue; but whose real views were to subvert every established government and religion, and delivering mankind from the necessary and salutary restraints of civil society, to bring them to an imaginary state of freedom and independence. Of this order much has been said, much has been written; but that a society has existed, regularly organized in the way this has been represented, working in secret, and, at the same time, possessing such extensive power and influence, no proof whatever has been adduced. The thing indeed seems impossible. See MASONRY, *Free*.

ILLUMINATING, a kind of miniature painting, anciently much practised for illustrating and adorning books. Besides the writers of books, there were artists whose profession was to ornament and paint manuscripts, who were called *illuminators*; the writers of books first finished their part, and the illuminators embellished them with ornamented letters and paintings. We frequently find blanks left in manuscripts for the illuminators, which were never filled up. Some of the ancient manuscripts are gilt and burnished in a style superior to later times. Their colours were excellent, and their skill in preparing them must have been very great.

The practice of introducing ornaments, drawings, emblematical figures, and even portraits, into manuscripts, is of great antiquity. Varro wrote the lives of 700 illustrious Romans, which he enriched with their portraits, as Pliny attests in his Natural History (lib. xxxv. chap. 2.). Pomponius Atticus, the friend of Cicero, was the author of a work on the actions of the great men amongst the Romans, which he ornamented with their portraits, as appears in his life by Cornelius Nepos (chap. 18.). But these works have not been transmitted to posterity. There are, however, many precious documents remaining, which exhibit the advancement and decline of the arts in different ages and countries. These inestimable paintings and illuminations display the manners, customs, habits ecclesiastical, civil, and military, weapons and instruments of war, utensils and architecture of the ancients; they are of the greatest use in illustrating many important facts re-

Illuminating. lative to the history of the times in which they were executed. In these treasures of antiquity are preserved a great number of specimens of Grecian and Roman art, which were executed before the arts and sciences fell into neglect and contempt. The manuscripts containing these specimens form a valuable part of the riches preserved in the principal libraries of Europe. The Royal, Cottonian, and Harleian libraries, as also those in the two universities in England, the Vatican at Rome, the imperial at Vienna, the royal at Paris, St Mark's at Venice, and many others.

A very ancient MS. of Genesis, which was in the Cottonian library, and almost destroyed by a fire in 1731, contained 250 curious paintings in water colours. Twenty-one fragments, which escaped the fire, are engraven by the society of antiquarians of London. Several specimens of curious paintings also appear in Lambecius's catalogue of the imperial library at Vienna, particularly in vol. iii. where 48 drawings of nearly equal antiquity with those in the Cottonian library are engraven; and several others may be found in various catalogues of the Italian libraries. The drawings in the Vatican Virgil, made in the fourth century, before the arts were entirely neglected, illustrate the different subjects treated of by the Roman poet. A miniature drawing is prefixed to each of the gospels brought over to England by St Augustin in the 6th century, which is preserved in the library of Corpus Christi college, Cambridge: in the compartments of those drawings are depicted representations of several transactions in each gospel. The curious drawings, and elaborate ornaments in St Cuthbert's gospels, made by St Ethelwald, and now in the Cottonian library, exhibit a striking specimen of the state of the arts in England in the 7th century. The same may be observed with respect to the drawings in the ancient copy of the four gospels preserved in the cathedral church of Litchfield, and those in the Codex Rushworthianus in the Bodleian library at Oxford. The life of St Paul the hermit, now remaining in Corpus Christi college, Cambridge, (G. 2.), affords an example of the style of drawing and ornamenting letters in England in the 8th century; and the copy of Prudentius's *Psycomachia* in the Cottonian library (Cleop. c. 8.) exhibits the style of drawing in Italy in the 9th century. Of the 10th century there are Roman drawings of a singular kind in the Harleian library (N° 2820.). N°s 5280, 1802, and 432, in the same library, contain specimens of ornamented letters, which are to be found in Irish MSS. from the 12th to the 14th century. Cædmon's Poetical Paraphrase of the book of Genesis, written in the 11th century, which is preserved amongst F. Junius's MSS. in the Bodleian library, exhibits many specimens of utensils, weapons, instruments of music, and implements of husbandry used by the Anglo-Saxons. The like may be seen in extracts from the Pentateuch of the same age in the Cottonian library (Claud. B. 4.). The manuscript copy of Terence in the Bodleian library (D. 17.) displays the dresses, masks, &c. worn by comedians in the 12th century, if not earlier. The very elegant Psalter in the library of Trinity college, Cambridge, exhibits specimens of the art of drawing in England in the same century. The Virgil in the Lambeth library of the 13th century (N° 471.), written in Italy, shows both by the drawings and writing, that the Italians produced works much inferior to ours at that period. The copy of the Apocalypse in the same library (N° 209.), contains a curious example of the manner of painting in the 14th century.—The beautiful paintings in the history of the latter part of the reign of King Richard II. in the Harleian library (N° 1319.), afford curious specimens of manners and customs, both civil and military, at the close of the 14th and in the beginning of the 15th century; as does N° 2278. in the same library.—Many other instances might be produced; but those who desire farther information may consult Strutt's Regal and Ecclesiastical Antiquities, 4to, and his Horda Angelcynnan lately published in 3 vols. Illuminating.

This art was much practised by the clergy, and even by some in the highest stations in the church. "The famous Osmund (says Bromton), who was consecrated bishop of Salisbury, A. D. 1076, did not disdain to spend some part of his time in writing, binding, and *illuminating* books." Mr Strutt, as already noticed, has given the public an opportunity of forming some judgment of the degree of delicacy and art with which these illuminations were executed, by publishing prints of a prodigious number of them, in his "Regal and Ecclesiastical Antiquities of England," and "View of the Customs, &c. of England." In the first of these works we are presented with the genuine portraits, in miniature, of all the kings, and several of the queens of England, from Edward the Confessor to Henry VII. mostly in their crowns and royal robes, together with the portraits of many other eminent persons of both sexes.

The illuminators and painters of this period seem to have been in possession of a considerable number of colouring materials, and to have known the arts of preparing and mixing them, so as to form a great variety of colours: for in the specimens of their miniature-paintings that are still extant, we perceive not only the five primary colours, but also various combinations of them. Though Strutt's prints do not exhibit the bright and vivid colours of the originals, they give us equally a view, not only of the persons and dresses of our ancestors, but also of their customs, manners, arts, and employments, their arms, ships, houses, furniture, &c. and enable us to judge of their skill in drawing. The figures in those paintings are often stiff and formal; but the ornaments are in general fine and delicate, and the colours clear and bright, particularly the gold and azure. In some of these illuminations the passions are strongly painted. How strongly, for example, is terror painted in the faces of the earl of Warwick's sailors, when they were threatened with a shipwreck, and grief in the countenances of those who were present at the death of that hero*? After the introduction of printing, this elegant art of illuminating gradually declined, and at length was quite neglected.

*See *Strutt* vol. ii. plates 56, 58.

Before concluding, it may not be improper to observe, that from the 5th to the 10th century, the miniature paintings which we meet with in Greek manuscripts are generally good, as are some which we find among those of Italy, England, and France. From the 10th to the middle of the 14th century they are commonly very bad, and may be considered as so many monuments of the barbarity of those ages; towards the latter end of the 14th, the paintings in manuscripts were much improved; and in the two succeeding centuries,

Illuminating || Illyrius.

turies, many excellent performances were produced, especially after the happy period of the restoration of the arts, when great attention was paid to the works of the ancients, and the study of antiquity became fashionable.

ILLUMINATORS. See ILLUMINATING.

ILLUMINED, ILLUMINATI, a church term, anciently applied to such persons as had received baptism. This name was occasioned by a ceremony in the baptism of adults; which consisted in putting a lighted taper in the hand of the person baptized, as a symbol of the faith and grace he had received in the sacrament.

ILLUMINED, *Illuminati*, is also the name of a sect of heretics, who sprang up in Spain about the year 1575, and were called by the Spaniards *Alambrados*. Their principal doctrines were, that by means of a sublime manner of prayer, which they had attained to, they entered into so perfect a state, that they had no occasion for ordinances, sacraments, nor good works; and that they could give way even to the vilest actions, without sin. The sect of Illumined was revived in France in the year 1634, and were soon after joined by the Guerinets, or disciples of Peter Guerin, who together made but one body, called also *Illumined*; but they were so hotly pursued by Louis XIII. that they were soon destroyed. The brothers of the Rosy Cross are sometimes also called *Illumined*. See ROSYCRUSIAN.

ILLUSTRIOUS, ILLUSTRIS, was heretofore, in the Roman empire, a title of honour peculiar to people of a certain rank. It was first given to the most distinguished among the knights, who had a right to bear the latus clavus: afterwards, those were intitled *illustrious* who held the first rank among those called *honorati*; that is, the præfecti prætorii, præfecti urbis, treasurers, comites, &c.

There were, however, different degrees among the *illustrious*; as in Spain they have grandees of the first and second class, so in Rome they had their *illustres*, whom they called great, *majores*; and others less, called *illustres minores*.—For instance; the præfectus prætorii was a degree below the master of the offices, though they were both *illustres*.

The Novels of Valentinian distinguish as far as five kinds of *illustres*; among whom, the *illustres administratores* bear the first rank.

ILLYRICUM, (*Solum* perhaps understood) Livy, Herodian, St Paul; called *Illyris* by the Greeks, and sometimes *Illyria*; the country extending from the Adriatic to Pannonia thus called. Its boundaries are variously assigned. Pliny makes it extend in length from the river Arsia to the Drinius, thus including Liburnia to the west, and Dalmatia to the east: which is also the opinion of Ptolemy; who settles its limits from Mount Scardus and the Upper Moesia on the east, to Istria in the west. A Roman province, divided by Augustus into the Superior and Inferior, but of which the limits are left undetermined both by ancient historians and geographers. *Illyrii* the people; called *Illyres* by the Greeks. The country is now called *Sclavonia*.

ILLYRIUS, MATHIAS, FLACCUS, or FRANCOWITZ, one of the most learned divines of the Augsburg confession, born in Istria, anciently called *Illyrica*, in 1520. He is said to have been a man of vast genius, extensive learning, of great zeal against Popery; but of such a restless and passionate temper, as overbalanced all his good qualities, and occasioned much disturbance in the Protestant church. He published a great number of books, and died in 1575.

Illyrius, Image.

IMAGE, in a religious sense, is an artificial representation or similitude of some person or thing, used either by way of decoration and ornament, or as an object of religious worship and adoration: in which last sense it is used indifferently with the word IDOL.

The noble Romans preserved the *images* of their ancestors with a great deal of care and concern, and had them carried in procession at their funerals and triumphs: these were commonly made of wax, or wood, though sometimes of marble or brass. They placed them in the vestibules of their houses; and they were to stay there, even if the houses happened to be sold, it being accounted impious to displace them. Appius Claudius was the first who brought them into the temples, in the year of Rome 259, and he added inscriptions to them, showing the origin of the persons represented, and their brave and virtuous achievements.—It was not, however, allowed for all, who had the *images* of their ancestors in their houses, to have them carried at their funerals; this was a thing only granted to such as had honourably discharged themselves of their offices; for those who failed in this respect forfeited that privilege; and in case they had been guilty of any great crime, their *images* were broken in pieces. See IGNOBILES and JUS.

The Jews absolutely condemn all *images*, and do not so much as suffer any statues or figures in their houses, much less in their synagogues or places of worship.

The use and adoration of *images* are things that have been a long time controverted in the world.

It is plain, from the practice of the primitive church, recorded by the earlier fathers, that Christians, for the first three centuries after Christ, and the greater part of the fourth, neither worshipped *images* nor used them in their worship. However, the greater part of the Popish divines maintain, that the use and worship of *images* were as ancient as the Christian religion itself: to prove this, they allege a decree, said to have been made in a council held by the Apostles at Antioch, commanding the faithful that they may not err about the object of their worship, to make *images* of Christ and worship them. Baron. ad ann. 102. But no notice is taken of this decree, till 700 years after the Apostolic times, after the dispute about *images* had commenced. The first instance that occurs in any credible author of *images* among Christians, is that recorded by Tertullian de Pudicit. c. 10. of certain cups, or chalices, as Bellarmine pretends, on which was represented the parable of the good shepherd carrying the lost sheep on his shoulders: but this instance only proves, that the church, at that time, did not think emblematical figures unlawful ornaments of cups or chalices. Another instance is taken from Eusebius, Hist. Eccl. lib. vii. cap. 18. who says, that in his time there were to be seen two brass statues in the city of Paneas or Cæsarea Philippi; the one of a woman on her knees, with her arms stretched out, the other of a man over against her, with his hand extended to receive her: these statues were said to be the *images* of our Saviour

and

Image. and the woman whom he cured of an issue of blood. From the foot of the statue representing our Saviour, says the historian, sprung up an exotic plant, which, as soon as it grew to touch the border of his garment, was said to cure all sorts of distempers. Eusebius, however, vouches none of these things: nay, he supposes that the woman who erected this statue of our Saviour was a pagan, and ascribes it to a pagan custom. Farther, Philostorgius, Eccl. Hist. lib. vii. c. 3. expressly says, that this statue was carefully preserved by the Christians, but that they paid no kind of worship to it, because it is not lawful for Christians to worship brass, or any other matter. The primitive Christians abstained from the worship of *images*, not, as the Papists pretend, from tenderness to heathen idolaters, but because they thought it unlawful in itself to make any *images* of the Deity. Justin Mart. Apol. ii. p. 44. Clem. Alex. Strom. 5. Strom. 1. and Protr. p. 46. Aug. de Civit. Dei. lib. vii. c. 5. and lib. iv. c. 32. Id. de Fide et Symb. c. 7. Lactant. lib. ii. c. 3. Tertull. Apol. c. 12. Arnob. lib. vi. p. 202. Some of the fathers, as Tertullian, Clemens Alexandrinus, and Origen, were of opinion, that by the second commandment, the arts of painting and engraving were rendered unlawful to a Christian, styling them evil and wicked arts. Tert. de Idol. cap. 3. Clem. Alex. Admon. ad. Gent. p. 41. Orig. contra Celsum. lib. vi. p. 182. The use of *images* in churches, as ornaments, was first introduced by some Christians in Spain, in the beginning of the fourth century; but the practice was condemned as a dangerous innovation, in a council held at Eliberis in 305. Epiphanius, in a letter preserved by Jerome, tom. ii. ep. 6. bears strong testimony against *images*, and may be considered as one of the first Iconoclasts. The custom of admitting pictures of saints and martyrs into the churches (for this was the first source of *image*-worship) was rare in the latter end of the fourth century; but became common in the fifth: however, they were still considered only as ornaments; and even in this view, they met with very considerable opposition. In the following century the custom of thus adorning churches became almost universal, both in the east and west. Petavius expressly says (de Incar. lib. xv. cap. 14.), that no statues were yet allowed in the churches; because they bore too near a resemblance to the idols of the Gentiles. Towards the close of the fourth or beginning of the fifth century, *images*, which were introduced by way of ornament, and then used as an aid to devotion, began to be actually worshipped. However, it continued to be the doctrine of the church in the sixth and in the beginning of the seventh century, that *images* were to be used only as helps to devotion, and not as objects of worship. The worship of them was condemned in the strongest terms by Pope Gregory the Great; as appears by two letters of his written in 601. From this time to the beginning of the eighth century, there occurs no single instance of any worship given or allowed to be given to *images* by any council or assembly of bishops whatever. But they were commonly worshipped by the monks and populace in the beginning of the eighth century; insomuch, that in the year 726, when Leo published his famous edict, it had already spread into all the provinces subject to the empire.

The Lutherans condemn the Calvinists for breaking the *images* in the churches of the Catholics, looking on it as a kind of sacrilege; and yet they condemn the Romanists (who are professed *image-worshippers*) as idolaters: nor can these last keep pace with the Greeks, who go far beyond them in this point; which has occasioned abundance of disputes among them. See Iconoclasts. Image. Imago.

The Mahometans have a perfect aversion to *images*; which was what led them to destroy most of the beautiful monuments of antiquity, both sacred and profane, at Constantinople.

Image, in *Rhetoric*, also signifies a lively description of any thing in discourse.

Images, in discourse are defined by Longinus, to be, in general, any thoughts proper to produce expressions, and which present a kind of picture to the mind.

But, in the more limited sense, he says, *images* are such discourses as come from us, when, by a kind of enthusiasm, or an extraordinary emotion of the soul, we seem to see the things whereof we speak, and present them before the eyes of those who hear us.

Images, in *Rhetoric*, have a very different use from what they have among the poets: the end principally proposed in poetry is, astonishment and surprise; whereas the thing chiefly aimed at in prose, is to paint things naturally, and to show them clearly. They have this, however, in common, that they both tend to move, each in its kind.

These *images*, or *pictures*, are of vast use, to give weight, magnificence, and strength, to a discourse. They warm and animate it; and when managed with art, according to Longinus, seem, as it were, to tame and subdue the hearer, and put him in the power of the speaker.

Image, in *Optics*, a figure in the form of any object, made by the rays of light issuing from the several points of it, and meeting in so many other points, either at the bottom of the eye, or on any other ground, or on any transparent medium, where there is no surface to reflect them. Thus we are said to see all objects by means of their images formed in the eye.

Imaginary Quantities, or *Impossible Quantities*, in *Algebra*, are the even roots of negative quantities; which expressions are imaginary, or impossible, or opposed to real quantities; as $\sqrt{-aa}$, or $\sqrt[4]{-a^4}$, &c. For as every even power of any quantity whatever, whether positive or negative, is necessarily positive, or having the sign $+$, because $+$ by $+$, or $-$ by $-$, give equally $+$; hence it follows that every even power, as the square for instance, which is negative, or having the sign $-$, has no possible root; and therefore the even roots of such powers or quantities are said to be impossible or imaginary. The mixt expressions arising from imaginary quantities joined to real ones, are also imaginary; as $a - \sqrt{-aa}$, or $b + \sqrt{-aa}$.

Imaginary Roots of an equation, are those roots or values of the unknown quantity, which contain some imaginary quantity. Thus, the roots of the equation $xx + aa = 0$, are the two imaginary quantities $+\sqrt{-aa}$ and $-\sqrt{-aa}$, or $+a\sqrt{-1}$ and $-a\sqrt{-1}$.

Imagination, a power or faculty of the mind, whereby it conceives and forms ideas of things communicated to it by the outward organs of sense. See Metaphysics.

Force of Imagination. See Monster.

Imago, in *Natural History*, is a name given by Linnæus

Imago ‖ meretia.

Linnæus to the third state of insects, when they appear in their proper shape and colours, and undergo no further transformation.

IMAM, or IMAN, a minister in the Mahometan church, answering to a parish priest among us. The word properly signifies what we call a prelate, *antistes*, one who presides over others; but the Mussulmans frequently apply it to a person who has the care and intendency of a mosque, who is always there at first, and reads prayers to the people, which they repeat after him.

IMAM is also applied, by way of excellence, to the four chiefs or founders of the four principal sects in the Mahometan religion. Thus Ali is the *imam* of the Persians, or of the sect of the Schiaites; Abu-beker the *imam* of the Sunnites, which is the sect followed by the Turks; Saphii, or Safi-y, the *imam* of another sect, &c.

The Mahometans do not agree among themselves about this *imamate* or dignity of the *imam*. Some think it of divine right and attached to a single family, as the pontificate of Aaron.—Others hold, that it is indeed of divine right, but deny it to be so attached to any single family, as that it may not be transferred to another. They add, that the *imam* is to be clear of all gross sins; and that otherwise he may be deposed, and his dignity may be conferred on another. However this be, it is certain, that after an *imam* has once been owned as such by the Mussulmans, he who denies that his authority comes immediately from God is accounted impious; he who does not obey him is a rebel; and he who pretends to contradict what he says is esteemed a fool, among the orthodox of that religion. The *imams* have no outward mark of distinction; their habit is the same with that of the Turks in common, except that the turban is a little larger, and folded somewhat differently.

IMAUS, in *Ancient Geography*, the largest mountain of Asia (Strabo); and a part of Taurus (Pliny); from which the whole of India runs off into a vast plain, resembling Egypt. It extends far and wide through Scythia, as far as to the Mare Glaciale, dividing it into the Hither or *Scythia intra Imaum*, and into the Farther, or *Scythia extra Imaum* (Ptolemy); and also stretching out along the north of India to the eastern ocean, separates it from Scythia. It had various names according to the different countries it run through: Postellus thinks it is the *Sephar* of Scripture.

IMBECILITY, a languid infirm state of body, which, being greatly impaired, is not able to perform its usual exercises and functions.

IMBIBING, the action of a dry porous body, that absorbs or takes up a moist or fluid one: thus, sugar imbibes water; a sponge, the moisture of the air, &c.

IMBRICATED, is used by some botanists, to express the figure of the leaves of some plants, which are hollowed like an *imbrex*, or gutter-tile, or are laid in close series over one another like the tiles of a house.

IMERETIA, or IMERETTA, the name of a kingdom, or rather principality, of Georgia, consisting of four provinces, is under the dominion of a prince named *David*. See GEORGIA.

The capital, where Prince David resides, is called *Curtays*. The remains of a church announce that Curtays was formerly a large city; but at present it can scarcely be accounted a village. Imeretta. Imitation.

Solomon, the father of the present sovereign, ordered the city to be destroyed, as well as the ramparts of the city; for he thought, and very wisely, that Caucasus was the only fortification capable of being defended by an army of 6000 men undisciplined and destitute of artillery.

The number of the inhabitants of Imeretta is reckoned to be 20,000 families; but the greater part of them live neither in towns nor villages, but are dispersed throughout the level country, each of them possessing a small hut or cottage. These people have fewer strangers among them, and they are more engaging in their appearance, than the Georgians. They are of a milder and less pusillanimous character; and the principal branch of their commerce consists in wines, a considerable quantity of which they export in skins as far as the confines of Georgia. They are acquainted with no other trade; for they are poor and miserable, and greatly oppressed by their lords.

The ordinary revenues of Imeretta, like those of Georgia, arise from a tythe which vassals are obliged to pay in wines, cattle, and corn, and some subsidies furnished annually by neighbouring princes. The extraordinary revenues for the most part arise from confiscations of every kind; but notwithstanding this, the finances of the prince are so limited, that he is often under the necessity of going from house to house, to live at the expence of his vassals, never quitting their habitations until the pressing wants of his hosts absolutely compel him. It is therefore probable, that the court of the sovereign of Imeretta is as deficient in brilliancy as his table is in splendour when he dines at home. His principal dishes consist of a certain food called *gom*, which is a kind of millet boiled, and a piece of roast meat, with some high-seasoned sauce. He never eats but with his fingers, for forks and spoons are unknown in Imeretta. At table he generally gives audiences respecting affairs of the first consequence, which he determines as he thinks proper; for in every country subject to his dominions there is no other law but his will.

On Friday, which is the market day, all his new edicts are published by a kind of herald, who climbs up into some tree, in order to proclaim the will of his sovereign. The Imerettans profess the religion of the Greek church. Their patriarch must be of the royal family; but it is seldom that he can either read or write; the priests who compose the rest of the clergy are not much more enlightened. The greater part of their churches are pitiful edifices, which can scarcely be distinguished from the common huts of the inhabitants but by a pasteboard crucifix, and a few coarse paintings of the Virgin, which are seen in them.

IMITATION, derived from the Latin *imitare*, to "represent or repeat," a sound or action, either exactly or nearly in the same manner as they were originally exhibited.

IMITATION, in *Music*, admits of two different senses. Sound and motion are either capable of imitating themselves by a repetition of their own particular modes, or of imitating other objects of a nobler and more abstracted

Imitation. stracted nature. Nothing perhaps is so purely mental, nothing so remote from external sense, as not to be imitable by music. But as the description of this in M. Rousseau, article *Imitation*, is nobly animated, and comprehends all that is necessary to be said on the subject, we translate it as follows.

"Dramatic or theatrical music (says he) contributes to imitation no less than painting or poetry: it is in this common principle that we must investigate both the origin and the final cause of all the fine arts; as M. le Batteaux has shown *. But this imitation is not equally extensive in all the imitative arts. Whatever the imagination can represent to itself is in the department of poetry. Painting, which does not present its pictures to the imagination immediately, but to external sense, and to one sense alone, paints only such objects as are discoverable by sight. Music might appear subjected to the same limits with respect to the ear; yet it is capable of painting every thing, even such images as are objects of ocular perception alone: by a magic almost inconceivable, it seems to transform the ears into eyes, and endow them with the double function of perceiving visible objects by the mediums of their own; and it is the greatest miracle of an art, which can only act by motion, that it can make that very motion represent absolute quiescence. Night, sleep, silence, solitude, are the noble efforts, the grand images, represented by a picturesque music. We know that noise can produce the same effect with silence, and silence the same effect with noise; as when one sleeps at a lecture insipidly and monotonically delivered, but wakes the instant when it ends. But music acts more intimately upon our spirits, in exciting by one sense dispositions similar to those which we find excited by another; and, as the relation between these images cannot be sensible unless the impression be strong, painting, when divested of this energy, cannot restore to music that assistance in imitations which she borrows from it. Though all nature should be asleep, he who contemplates her does not sleep; and the art of the musician consists in substituting, for this image of insensibility in the object, those emotions which its presence excites in the heart of the contemplator. He not only ferments and agitates the ocean, animates the flame to conflagration, makes the fountain murmur in his harmony, calls the rattling shower from heaven, and swells the torrent to resistless rage; but he paints the horrors of a boundless and frightful desert, involves the subterranean dungeon in tenfold gloom, soothes the tempest, tranquillizes the disturbed elements, and from the orchestra diffuses a recent fragrance through imaginary groves; nay, he excites in the soul the same emotions which we feel from the immediate perception and full influence of these objects."

*See *Beaux Arts reduit à une même principe.*

Under the word *Harmony*, Rousseau has said, that no assistance can be drawn from thence, no original principle which leads to musical imitation; since there cannot be any relation between chords and the objects which the composer would paint, or the passions which he would express. In the article *Melody*, he imagines he has discovered that principle of imitation which harmony cannot yield, and what resources of nature are employed by music in representing these objects and these passions.

It is hoped, however, that in our article of MELODY, we have shown upon what principle musical imitation may be compatible with harmony; though we admit, that from melody it derives its most powerful energy, and its most attractive graces. Yet we must either be deceived beyond all possibility of cure, or we have felt the power of imitative harmony in a high degree. We are certain that the fury, the impetuosity, the rapid vicissitudes, of a battle, may be successfully and vividly represented in harmony. We have participated the exultation and triumph of a conquest, inspired by the sound of a full chorus. We have felt all the solemnity and grandeur of devotion from the slow movement, the deep chords, the swelling harmony, of a sentimental composition played upon the organ. Nor do we imagine harmony less capable of presenting the tender depression, the fluctuating and tremulous agitation, of grief. As this kind of imitation is the noblest effort of music, it is astonishing that it should have been overlooked by M. d'Alembert. He has indeed apologized, by informing us, that his treatise is merely elementary: but we are uncertain how far this apology ought to be regarded as sufficient, when it is at the same time considered, that he has given an account of imitation in its mechanical, or what Rousseau calls its *technical*, sense; which, however, to prevent ambiguity, we should rather choose to call *mymesis* or *anacephaliosis*. To Rousseau's account of the word in this acceptation, we return.

Imitation.

"Imitation (says he) in its technical sense, is a reiteration of the same air, or of one which is similar, in several parts where it is repeated by one after the other, either in unison, or at the distance of a fourth, a fifth, a third, or any other interval whatever. The imitation may be happily enough pursued even though several notes should be changed; provided the same air may always be recognised, and that the composer does not deviate from the laws of proper modulation. Frequently, in order to render the imitation more sensible, it is preceded by a general rest, or by long notes which seem to obliterate the impression formerly made by the air till it is renewed with greater force and vivacity by the commencement of the imitation. The imitation may be treated as the composer chooses; it may be abandoned, resumed, or another begun, at pleasure; in a word, its rules are as much relaxed as those of the fugue are severe; for this reason, it is despised by the most eminent masters; and every imitation of this kind, too much affected, almost always betrays a novice in composition."

IMITATION, in *Oratory*, is an endeavour to resemble a speaker or writer in those qualities with regard to which we propose them to ourselves as patterns. The first historians among the Romans, says Cicero, were very dry and jejune, till they began to imitate the Grecks, and then they became their rivals. It is well known how closely Virgil has imitated Homer in his Æneid, Hesiod in his Georgics, and Theocritus in his Eclogues. Terence copied after Menander; and Plautus after Epicarmus, as we learn from Horace, lib. ii. ep. ad August. who himself owes many of his beauties to the Greek lyric poets. Cicero appears, from many passages in his writings, to have imitated the Greek orators. Thus Quintilian says of him, that he has expressed the strength and sublimity of Demosthenes,

Imitation
Impale.

mosthenes, the copiousness of Plato, and the delicacy of Isocrates.

IMMACULATE, something without stain, chiefly applied to the conception of the holy Virgin. See *Conception, Immaculate.*

IMMATERIAL, something devoid of matter, or that is pure spirit. See Metaphysics.

IMMEDIATE, whatever is capable of producing an effect without the intervention of external means; thus we say, an immediate cause, in opposition to a mediate or remote one.

IMMEMORIAL, an epithet given to the time or duration of any thing whose beginning we know nothing of.

In a legal sense, a thing is said to be *of time immemorial*, or *time out of mind*, that was before the reign of our king Edward II.

IMMENSITY, an unlimited extension, or which no finite and determinate space, repeated ever so often, can equal.

IMMER, the most easterly island of all the New Hebrides in the South sea. It lies about four leagues from Tanna, and seems to be about five leagues in circumference; it is of a considerable height, with a flat top.

IMMERETTA, or Imeretia. See Imeretia.

IMMERSION, that act by which any thing is plunged into water or other fluid.

It is used in chemistry for a species of calcination, when any body is immersed in a fluid to be corroded: or it is a species of lotion; as when a substance is plunged into any fluid, in order to deprive it of a bad quality, or communicate to it a good one.

Immersion, in *Astronomy*, is when a star or planet is so near the sun with regard to our observations, that we cannot see it; being, as it were, enveloped and hid in the rays of that luminary. It also denotes the beginning of an eclipse of the moon, or that moment when the moon begins to be darkened, and to enter into the shadow of the earth.

IMMOLATION, a ceremony used in the Roman sacrifices; it consisted in throwing upon the head of the victim some sort of corn and frankincense, together with the *mola* or salt cake, and a little wine.

IMMORTAL, that which will last to all eternity, as having in it no principle of alteration or corruption.

IMMUNITY, a privilege or exemption from some office, duty, or imposition; as an exemption from tolls, &c.

Immunity is more particularly understood of the liberties granted to cities and communities.

IMMUTABILITY, the condition of a thing that cannot change. Immutability is one of the divine attributes. See God,

IMOLA, a town of Italy, in the territory of the church, and in Romagna, with a bishop's see. It is a very handsome populous place; and is seated on the river Santerno, in E. Long. 11. 43. N. Lat. 44. 28.

IMPACT, the simple or single action of one body upon another to put it in motion. Point of impact is the place or point where a body acts.

IMPALE, in *Heraldry*, is to conjoin two coats of arms pale-wise. Women impale their coats of arms with those of their husbands. See Heraldry.

Impale
Impeccability.

To impale cities, camps, fortifications, &c. is to inclose them with pallisadoes.

To Impale, or *Empale*, signifies also to put to death by spitting on a stake fixed upright.

IMPALPABLE, that whose parts are so extremely minute, that they cannot be distinguished by the senses, particularly by that of feeling.

IMPANATION, a term used by divines to signify the opinion of the Lutherans with regard to the eucharist, who believe that the species of bread and wine remain together with the body of our Saviour after consecration.

IMPANNELLING, in *Law*, signifies the writing down or entering into a parchment, list, or schedule, the names of a jury summoned by the sheriff to appear for such public services as juries are employed in.

IMPARLANCE, in *Law*, a petition in court for a day to consider or advise what answer the defendant shall make to the plaintiff's action; and is the continuance of the cause till another day, or a longer time given by the court.

IMPASSIBLE, that which is exempt from suffering; or which cannot undergo pain or alteration. The Stoics place the soul of their wise men in an impassible, imperturbable state. See Apathy.

IMPASTATION, the mixture of various materials in different colours and consistencies, baked or bound together with some cement, and hardened either by the air or by fire.

IMPATIENS, Touch-me-not, and *Balsamine*; a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 24th order, *Corydales*. See Botany *Index*.

IMPEACHMENT, an accusation and prosecution for treason and other crimes and misdemeanours. Any member of the lower house of parliament may impeach any one belonging either to that body, or to the house of lords. The method of proceeding is to exhibit articles on the behalf of the commons, by whom managers are appointed to make good their charge. These articles are carried to the lords, by whom every person impeached by the commons is always tried; and if they find him guilty, no pardon under the great seal can be pleaded to such an impeachment. 12 Will. III. cap. ii.

IMPECCABILES, in church history, a name given to those heretics who boasted that they were impeccable, and that there was no need of repentance: such were the Gnostics, Priscillianists, &c.

IMPECCABILITY, the state of a person who cannot sin; or a grace, privilege, or principle, which puts him out of a possibility of sinning.

The schoolmen distinguish several kinds and degrees of impeccability: that of God belongs to him by nature: that of Jesus Christ, considered as man, belongs to him by the hypostatical union: that of the blessed is a consequence of their condition: that of men is the effect of a confirmation in grace, and is rather called *impeccance* than *impeccability*; accordingly divines distinguish between these two: this distinction is found necessary in the disputes against the Pelagians, in order to explain certain terms in the Greek and Latin

Impeccability || Imperial Cities.

fathers, which without this distinction are easily confounded.

IMPEDIMENTS, in *Law*, are such hinderances as put a stop or stay to a person's seeking for his right by a due course of law. Persons under impediments are those under age or coverture, *non compos mentis*, in prison, beyond sea, &c. who, by a saving in our laws, have time to claim and prosecute their rights, after the impediments are removed, in case of fines levied, &c.

IMPENETRABILITY, in *Philosophy*, that property of body, whereby it cannot be pierced by another: Thus, a body which so fills a space as to exclude all others, is said to be impenetrable.

IMPERATIVE, one of the moods of a verb, used when we would command, intreat, or advise: thus, *go read*, *take pity*, *be advised*, are imperatives in our language. But in the learned languages, this mood has a peculiar termination to distinguish it from others, as *i*, or *ito*, "go;" *lege*, or *legito*, "read," &c. and not only so, but the termination varies, according as you address one or more persons, as *audi*, and *audite*; ακουε, ακουετω, ακουετωσαν, &c.

IMPERATOR, in Roman antiquity, a title of honour conferred on victorious generals by their armies, and afterwards confirmed by the senate.

Imperator was also the title adopted by the Roman emperors.

IMPERATORIA, MASTERWORT, a genus of plants belonging to the pentandria class; and in the natural method ranking under the 45th order, *Umbellatæ*. See BOTANY *Index*.

IMPERFECT, something that is defective, or that wants some of the properties found in other beings of the same kind.

IMPERFECT Number, is that whose aliquot parts, taken all together, do not make a sum that is eqnal to the number itself, but either exceed it, or fall short of it; being an abundant number in the former case, and a defective number in the latter. Thus 12 is an abundant imperfect number, because the sum of all its aliquot parts, 1, 2, 3, 4, 6, makes 16, which exceeds the number 12. And 10 is a defective imperfect number, because its aliquot parts 1, 2, 5, taken all together, make only 8, which is less than the number 10 itself.

IMPERFECT Tense, in *Grammar*, a tense that denotes some preterite case, or denotes the thing to be at that time present, and not quite finished; as *scribebam*, "I was writing." See GRAMMAR.

IMPERIAL, something belonging to an emperor, or empire. See EMPEROR and EMPIRE.—Thus we say, his *imperial* majesty, the *imperial* crown, *imperial* arms, &c.

IMPERIAL Crown. See HERALDRY.

IMPERIAL Chamber, is a sovereign court, established for the affairs of the immediate states of the empire. See CHAMBER, and GERMANY.

IMPERIAL Cities, in Germany, are those which own no other head but the emperor. These are a kind of little commonwealths; the chief magistrate whereof does homage to the emperor; but in other respects, and in the administration of justice, is sovereign. Imperial cities have a right of coining money, and of keeping forces and fortified places. Their deputies assisted at the imperial diets, where they are divided into two branches, that of the Rhine and that of Suabia. There were formerly 22 in the former and 37 in the latter; but since 1815 there are only four, Hamburg, Bremen, Lubec, and Frankfort.

Imperial Cities || Imposition.

IMPERIAL Diet, is an assembly or convention of all the states of the empire. See DIET and GERMANY.

IMPERSONAL VERB, in *Grammar*, a verb to which the nominative of any certain person cannot be prefixed; or, as others define it, a verb destitute of the two first and primary persons, as *decet*, *oportet*, &c. the impersonal verbs of the active voice end in *t*, and those of the passive in *tur*; they are conjugated through the third person singular of almost all the tenses and moods: they want the imperative, instead of which we use the present of the subjunctive; as *pœniteat*, *pugnetur*, &c. nor, but a few excepted, are they to be met with in the supines, participles or gerunds.

IMPERVIOUS, a thing not to be pervaded or passed through, either by reason of the closeness of its pores, or the particular configuration of its parts.

IMPETIGO, in *Medicine*, an extreme roughness and foulness of the skin, attended with an itching and pleutiful scurf.

The *impetigo* is a species of dry pruriginous itch, wherein scales or scurf succeed apace; arising from saline corrosive humours thrown out upon the exterior parts of the body, by which means the internal parts are usually relieved.

IMPETRATION, the act of obtaining any thing by request or prayer.

IMPETRATION was more particularly used in our statutes for the pre-obtaining of benefices and church-offices in England from the court of Rome, which did belong to the disposal of the king and other lay patrons of the realm; the penalty whereof is the same with that of provisors, 25 Ed. III.

IMPETUS, in *Mechanics*, the force with which one body strikes or impels another.

IMPLICATION, in *Law*, is where something is implied that is not expressed by the parties themselves in their deeds, contracts, or agreements.

To IMPLY, or CARRY, in *Music*. These we have used as synonymous terms in that article. They are intended to signify those sounds which ought to be the proper concomitants of any note, whether by its own nature, or by its position in artificial harmony. Thus every note, considered as an independent sound, may be said to *carry* or *imply* its natural barmonics, that is to say, its octave, its twelfth, and its seventeenth; or, when reduced, its eighth, its fifth, and its third. But the same sound, when considered as constituting any part of harmony, is subjected to other laws and different limitations. It can then only be said to *carry* or *imply* such simple sounds, or complications of sound, as the preceding and subsequent chords admit or require. For these the laws of melody and harmony must be consulted. See MELODY and HARMONY.

IMPORTATION, in *Commerce*, the bringing merchandise into a kingdom from foreign countries; in contradistinction to exportation. See EXPORTATION.

For the principal laws relating to importation, see *Customhouse Laws*.

IMPOSITION of hands, an ecclesiastical action by which

Imposition & Imposthume.

which a bishop lays his hand on the head of a person, in ordination, confirmation, or in uttering a blessing. This practice is also frequently observed by the dissenters at the ordination of their ministers, when all the ministers present place their hands on the head of him whom they are ordaining, while one of them prays for a blessing on him and his future labours. This some of them retain as an ancient practice, justified by the example of the apostles, when no extraordinary gifts are conveyed. However, they are not agreed as to the propriety of this ceremony; nor do they consider it as an essential part of ordination.

Imposition of hands was a Jewish ceremony, introduced not by any divine authority, but by custom; it being the practice among those people whenever they prayed to God for any person to lay their hands on his head.

Our Saviour observed the same custom, both when he conferred his blessing on children, and when he cured the sick; adding prayer to the ceremony. The apostles likewise laid hands on those upon whom they bestowed the Holy Ghost.—The priests observed the same custom when any one was received into their body.—And the apostles themselves underwent the imposition of hands afresh every time they entered upon any new design. In the ancient church imposition of hands was even practised on persons when they married, which custom the Abyssinians still observe.

IMPOSSIBLE, that which is not possible, or which cannot be done or effected. A proposition is said to be impossible, when it contains two ideas which mutually destroy each other, and which can neither be conceived nor united together. Thus it is impossible that a circle should be a square; because we conceive clearly that squareness and roundness destroy each other by the contrariety of their figure.

There are two kinds of impossibilities, *physical* and *moral*.

Physical impossibility is that which is contrary to the law of nature.

A thing is morally impossible, when of its own nature it is possible, but yet is attended with such difficulties, as that, all things considered, it appears impossible. Thus it is morally impossible that all men should be virtuous; or that a man should throw the same number with three dice a hundred times successively.

A thing which is impossible in law, is the same with a thing impossible in nature: and if any thing in a bond or deed be impossible to be done, such deed, &c. is void. 21 Car. I.

IMPOST, in *Architecture*, a capital or plinth, to a pillar or pilaster, or pier that supports an arch, &c.

Impost, in *Law*, signifies in general a tribute or custom, but is more particularly applied to signify that tax which the crown receives for merchandises imported into any port or haven.

IMPOSTHUME, or abscess, a collection of matter or pus in any part of the body, either owing to an obstruction of the fluids in that part, which makes them change into such matter, or to a translation of it from some other part where it was generated. See Surgery *Index*.

Impostor & Impotency.

IMPOSTOR, in a general sense, denotes a person who cheats by a fictitious character.

Religious Impostors, are such as falsely pretend to an extraordinary commission from heaven; and who terrify and abuse the people with false denunciations of judgments. These are punishable in the temporal courts with fine, imprisonment, and infamous corporal punishment.

IMPOTENCE, or Impotency, in general, denotes want of strength, power, or means, to perform any thing.

Divines and philosophers distinguish two sorts of impotency; natural and moral. The first is a want of some physical principle, necessary to an action; or where a being is absolutely defective, or not free and at liberty to act: The second only imports a great difficulty; as a strong habit to the contrary, a violent passion, or the like.

Impotency is a term more particularly used for a natural inability to coition. Impotence with respect to men is the same as sterility in women; that is, an inability of propagating the species. There are many causes of impotence; as, a natural defect in the organs of generation, which seldom admits of a cure: accidents or diseases; and in such cases the impotence may or may not be remedied, according as these are curable or otherwise.—The most common causes are, early and immoderate venery, or the venereal disease. We have instances, however, of unfitness for generation in men, by an impediment to the ejection of the semen in coition, from a wrong direction which the orifice at the *verumontanum* got, whereby the seed was thrown up into the bladder. M. Petit cured one patient under such a difficulty of emission, by making an incision like to that commonly made in the great operation for the stone.

On this subject we have some curious and original observations by the late Mr John Hunter in his Treatise on the Venereal Disease *. He considers impotency as depending upon two causes. One he refers to the mind; the other to the organs.

* P. 203. &c. 2d edit.

1. *As to impotency depending upon the mind*, he observes, that as the "parts of generation are not necessary for the existence or support of the individual, but have a reference to something else in which the mind has a principal concern; so a complete action in those parts cannot take place without a perfect harmony of body and of mind; that is, there must be both a power of body and disposition of mind; for the mind is subject to a thousand caprices, which affect the actions of these parts.

"Copulation is an act of the body, the spring of which is in the mind; but it is not volition; and according to the state of the mind, so is the act performed. To perform this act well, the body should be in health, and the mind should be perfectly confident of the powers of the body; the mind should be in a state entirely disengaged from every thing else: it should have no difficulties, no fears, no apprehensions, not even an anxiety to perform the act well: for even this anxiety is a state of mind different from what should prevail; there should not be even a fear that the mind itself may find a difficulty at the time the act should be performed. Perhaps no function of

Impotency. the machine depends so much upon the state of the mind as this.

"The will and reasoning faculty have nothing to do with this power; they are only employed in the act, so far as voluntary parts are made use of: and if they ever interfere, which they sometimes do, it often produces another state of mind which destroys that which is proper for the performance of the act; it produces a desire, a wish, a hope, which are all only diffidence and uncertainty, and create in the mind the idea of a possibility of the want of success, which destroys the proper state of mind or necessary confidence.

"There is perhaps no act in which a man feels himself more interested, or is more anxious to perform well; his pride being engaged in some degree, which if within certain bounds would produce a degree of perfection in an act depending upon the will, or an act in voluntary parts; but when it produces a state of mind contrary to that state on which the perfection of the act depends, a failure must be the consequence.

"The body is not only rendered incapable of performing this act by the mind being under the above influence, but also by the mind being, though perfectly confident of its power, yet conscious of an impropriety in performing it; this, in many cases, produces a state of mind which shall take away all power. The state of a man's mind respecting his sister takes away all power. A conscientious man has been known to lose his powers on finding the woman he was going to be connected with unexpectedly a virgin.

"Shedding tears arises entirely from the state of the mind, although not so much a compound action as the act in question; for none are so weak in body that they cannot shed tears; it is not so much a compound action of the mind and strength of body joined, as the other act is; yet if we are afraid of shedding tears, or are desirous of doing it, and that anxiety is kept up through the whole of an affecting scene, we certainly shall not shed tears, or at least not so freely as would have happened from our natural feelings.

"From this account of the necessity of having the mind independent respecting the act, we must see that it may very often happen that the state of mind will be such as not to allow the animal to exert its natural powers; and every failure increases the evil. We must also see from this state of the case, that this act must be often interrupted; and the true cause of this interruption not being known, it will be laid to the charge of the body or want of powers. As these cases do not arise from real inability, they are to be carefully distinguished from such as do; and perhaps the only way to distinguish them is, to examine into the state of mind respecting this act. So trifling often is the circumstance which shall produce this inability depending on the mind, that the very desire to please shall have that effect, as in making the woman the sole object to be gratified.

"Cases of this kind we see every day; one of which I shall relate as an illustration of this subject, and also of the method of cure.—A gentleman told me, that he had lost his virility. After above an hour's investigation of the case, I made out the following facts: that he had at unnecessary times strong erections, which showed that he had naturally this power; that the erections were accompanied with desire, which are all the natural powers wanted; but that there was still a defect somewhere, which I supposed to be from the mind. I inquired if all women were alike to him? His answer was, No; some women he could have connection with as well as ever. This brought the defect, whatever it was, into a smaller compass: and it appeared that there was but one woman that produced this inability, and that it arose from a desire to perform the act with this woman well; which desire produced in the mind a doubt or fear of the want of success, which was the cause of the inability of performing the act. As this arose entirely from the state of the mind produced by a particular circumstance, the mind was to be applied to for the cure; and I told him that he might be cured, if he could perfectly rely on his own power of self-denial. When I explained what I meant, he told me that he could depend upon every act of his will or resolution. I then told him, that, if he had a perfect confidence in himself in that respect, he was to go to bed to this woman, but first promise to himself that he would not have any connection with her for six nights, let his inclinations and powers be what they would; which he engaged to do, and also to let me know the result. About a fortnight after, he told me, that his resolution had produced such a total alteration in the state of his mind, that the power soon took place; for instead of going to bed with the fear of inability, he went with fears that he should be possessed with too much desire, too much power, so as to become uneasy to him; which really happened; for he would have been happy to have shortened the time; and when he had once broke the spell, the mind and powers went on together, and his mind never returned to its former state."

2. *Of impotency from a want of proper correspondence between the actions of the different organs.* Our author, in a former part of his Treatise, when considering the diseases of the urethra and bladder, had remarked, that every organ in an animal body, without exception, was made of different parts, whose functions or actions were totally different from one another, although all tending to produce one ultimate effect. In all such organs, when perfect (he observes), there is a succession of motions, one naturally arising out of the other, which in the end produces the ultimate effect; and an irregularity alone in these actions will constitute disease, at least will produce very disagreeable effects, and often totally frustrate the intention of the organ. This principle Mr Hunter, on the present occasion, applies to the "actions of the testicles and penis: for we find that an irregularity in the actions of these parts sometimes happens in men, producing impotence; and something similar probably may be one cause of barrenness in women.

"In men, the parts subservient to generation may be divided into two; the essential and the accessory. The testicles are the essential; the penis, &c. the accessory. As this division arises from their uses or actions in health, which exactly correspond with one another, a want of exactness in the correspondence or susceptibility of those actions may also be divided into two: where the actions are reversed, the accessory taking place without the first or essential, as in erections of the penis, where neither the mind nor the testicles are stimulated to action; and the second is where the testicles perform

the

Impotency. the action of secretion too readily for the penis, which has not a corresponding erection. The first is called *priapism*; and the second is what ought to be called *seminal weakness*.

"The mind has considerable effect on the correspondence of the actions of these two parts: but it would appear in many instances, that erections of the penis depend more on the state of the mind than the secretion of the semen does; for many have the secretion, but not the erection; but in such, the want of erection appears to be owing to the mind only.

"Priapism often arises spontaneously; and often from visible irritation of the penis, as in the venereal gonorrhœa, especially when violent. The sensation of such erections is rather uneasy than pleasant; nor is the sensation of the glans at the time similar to that arising from the erections of desire, but more like to the sensation of the parts immediately after coition. Such as arise spontaneously are of more serious consequence than those from inflammation, as they proceed probably from causes not curable in themselves or by any known methods. The priapism arising from inflammation of the parts, as in a gonorrhœa, is attended with nearly the same symptoms; but generally the sensation is that of pain, proceeding from the inflammation of the parts. It may be observed, that what is said of priapism is only applicable to it when a disease in itself, and not when a symptom of other diseases, which is frequently the case.

"The common practice in the cure of this complaint is to order all the nervous and strengthening medicines; such as bark, valerian, musk, camphor, and also the cold bath. I have seen good effects from the cold bath; but sometimes it does not agree with the constitution, in which case I have found the warm bath of service. Opium appears to be a specific in many cases; from which circumstance I should be apt, upon the whole, to try a soothing plan.

"Seminal weakness, or a secretion and emission of the semen without erections, is the reverse of a priapism, and is by much the worse disease of the two. There is great variety in the degrees of this disease, there being all the gradations from the exact correspondence of the actions of all the parts to the testicles acting alone; in every case of the disease, there is too quick a secretion and evacuation of the semen. Like to the priapism, it does not arise from desires and abilities; although when mild it is attended with both, but not in a due proportion; a very slight desire often producing the full effect. The secretion of the semen shall be so quick, that simple thought, or even toying, shall make it flow.

"Dreams have produced this evacuation repeatedly in the same night; and even when the dreams have been so slight, that there has been no consciousness of them when the sleep has been broken by the act of emission. I have known cases where the testicles have been so ready to secrete, that the least friction on the glans has produced an emission: I have known the simple action of walking or riding produce this effect, and that repeatedly, in a very short space of time. Impotency.

"A young man, about four or five and twenty years of age, not so much given to venery as most young men, had these last mentioned complaints upon him. Three or four times in the night he would emit; and if he walked fast, or rode on horseback, the same thing would happen. He could scarcely have connection with a woman before he emitted, and in the emission there was hardly any spasm. He tried every supposed strengthening medicine, as also the cold bath and seabathing, but with no effect. By taking 20 drops of laudanum on going to bed, he prevented the night emissions; and by taking the same quantity in the morning, he could walk or ride without the beforementioned inconvenience. I directed this practice to be continued for some time, although the disease did not return, that the parts might be accustomed to this healthy state of action; and I have reason to believe the gentleman is now well. It was found necessary, as the constitution became more habituated to the opiate, to increase the dose of it.

"The spasms, upon the evacuation of the semen in such cases are extremely slight, and a repetition of them soon takes place; the first emission not preventing a second; the constitution being all the time but little affected (A). When the testicles act alone, without the accessory parts taking up the necessary and natural consequent action, it is still a more melancholy disease; for the secretion arises from no visible or sensible cause, and does not give any visible or sensible effect, but runs off similar to involuntary stools or urine. It has been observed that the semen is more fluid than natural in some of these cases.

"There is great variety in the diseased actions of these parts; of which the following case may be considered as an example. A gentleman has had a stricture in the urethra for many years, for which he has frequently used a bougie, but has of late neglected it. He has had no connection with women for a considerable time, being afraid of the consequences. He has often in his sleep involuntary emissions, which generally awake him at the paroxysm; but what surprises him most is, that often he has such without any semen passing forwards through the penis, which makes him think that at those times it goes backward into the bladder. This is not always the case, for at other times the semen passes forwards. At the time the semen seems to pass into the bladder, he has the erection, the dream; and is awaked with the same mode of action, the same sensation, and the same pleasure, as when it passes through the urethra, whether dreaming or waking. My opinion is, that the same irritation takes place in the bulb of the urethra without the semen that takes place there when the semen enters, in consequence of all the natural preparatory steps, whereby the very same actions are excited as if it came into the

(A) "It is to be considered, that the constitution is commonly affected by the spasms only, and in proportion to their violence, independent of the secretion and evacuation of the semen. But in some cases even the erection going off without the spasms on the emission, shall produce the same debility as if they had taken place."

Impotency ‖ Impressing.

the passage: from which one would suppose, that either semen is not secreted; or if it be, that a retrograde motion takes place in the actions of the acceleratores urinæ. But if the first be the case, then we may suppose, that in the natural state the actions of those muscles do not arise simply from the stimulus of the semen in the part, but from their action being a termination of a preceding one, making part of a series of actions. Thus they may depend upon the friction, or the imagination of a friction, on the penis; the testicles not doing their part, and the spasm in such cases arising from the friction and not from the secretion. In many of those cases of irregularity, when the erection is not strong, it shall go off without the emission; and at other times an emission shall happen almost without an erection; but these arise not from debility, but affections of the mind.

"In many of the preceding cases, washing the penis, scrotum, and perinæum, with cold water, is often of service; and to render it colder than it is in some seasons of the year, common salt may be added to it, and the parts washed when the salt is almost dissolved."

IMPOTENCY is a canonical disability, to avoid marriage in the spiritual court. The marriage is not void *ab initio*, but voidable only by sentence of separation during the life of the parties.

IMPRECATION, (derived from *in*, and *precor*, "I pray;") a curse or wish that some evil may befal any one.

The ancients had their goddesses called *Imprecations*, in Latin, *Diræ*, i. e. *Deorum iræ*, who were supposed to be the executioners of evil consciences. They were called *Diræ* in heaven, *Furies* on earth, and *Eumenides* in hell. The Romans owned but three of these *Imprecations*, and the Greeks only two. They invoked them with prayers and pieces of verses to destroy their enemies.

IMPREGNATION, the getting a female with child. See CONCEPTION.

The term *impregnation* is also used, in pharmacy, for communicating the virtues of one medicine to another, whether by mixture, coction, digestion, &c.

IMPRESSING SEAMEN. The power of impressing sea-faring men for the sea-service by the king's commission, bas been a matter of some dispute, and submitted to with great reluctance; though it hath very clearly and learnedly been shown by Sir Michael Forster, that the practice of impressing, and granting powers to the admiralty for that purpose, is of a very ancient date, and hath been uniformly continued by a regular series of precedents to the present time: whence he concludes it to be part of the common law. The difficulty arises from hence, tbat no statute has expressly declared this power to be in the crown, though many of them very strongly imply it. The statute 2 Rich. II. c. 4. speaks of mariners being arrested and retained for the king's service, as of a thing well known, and practised without dispute; and provides a remedy against their running away. By a later statute, if any waterman, who uses the river Thames, shall hide himself during the execution of any commission of pressing for the king's service, he is liable to heavy penalties. By another (5 Eliz. c. 5.) no fisherman shall be taken by the queen's commission to serve as a mariner; but the commission shall be first brought to two justices of the peace, inhabiting near the sea coast where the mariners are to be taken, to the intent that the justices may choose out and return such a number of able-bodied men, as in the commission are contained, to serve her majesty. And by others, especial protections are allowed to seamen in particular circumstances, to prevent them from being impressed. Ferrymen are also said to be privileged from being impressed, at common law. All which do most evidently imply a power of impressing to reside somewhere; and if anywhere, it must, from the spirit of our constitution, as well as from the frequent mention of the king's commission, reside in the crown alone.—After all, however, this method of manning the navy is to be considered as only defensible from public necessity, to which all private considerations must give way.

Impressi ‖ Imprison ment.

The following persons are exempted from being impressed: Apprentices for three years; the master, mate, and carpenter, and one man for every 100 tons, of vessels employed in the coal trade; all under 18 years of age, and above 55; foreigners in merchantships and privateers; landmen betaking themselves to sea for two years; seamen in the Greenland fishery, and harpooners, employed, during the interval of the fishing season, in the coal-trade, and giving security to go to the fishing next season.

IMPRESSION is applied to the species of objects which are supposed to make some mark or impression on the senses, the mind, and the memory. The Peripatetics assert, that bodies emit species resembling them, which are conveyed to the common *sensorium*, and they are rendered intelligible by the active intellect; and, when thus spiritualized, are called *expressions*, or *express species*, as being expressed from the others.

IMPRESSION also denotes the *edition* of a book, regarding the mechanical part only; whereas *edition*, besides this, takes in the care of the editor, who corrected or augmented the copy, adding notes, &c. to render the work more useful.

IMPRISONMENT, the state of a person restrained of his liberty, and detained under the custody of another.

No person is to be imprisoned but as the law directs, either by the command or order of a court of record, or by lawful warrant; or the king's process, on which one may be lawfully detained. And at common law, a person could not be imprisoned unless he were guilty of some force and violence for which his body was subject to imprisonment, as one of the highest executions. Where the law gives power to imprison, in such case it is justifiable, provided he that does it in pursuance of a statute exactly pursues the statute in the manner of doing it; for otherwise it will be deemed false imprisonment, and of consequence it is unjustifiable. Every warrant of commitment for imprisoning a person ought to run, "till delivered by due course of law," and "not until farther order;" which has been held ill: and thus it also is, where one is imprisoned on a warrant not mentioning any cause for which he is committed. See ARREST and COMMITMENT.

False IMPRISONMENT. Every confinement of the person is an imprisonment, whether it be in a common prison, or in a private house, or in the stocks, or even by

Imprisonment ‖ Impurity.

by forcibly detaining one in the public streets. Unlawful or *false imprisonment* consists in such confinement or detention without sufficient authority; which authority may arise either from some process from the courts of justice; or from some warrant from a legal power to commit, under his hand and seal, and expressing the cause of such commitment; or from some other special cause warranted, for the necessity of the thing, either by common law or act of parliament; such as the arresting of a felon by a private person without warrant, the impressing of mariners for the public service, or the apprehending of waggoners for misbehaviour in the public highways. False imprisonment also may arise by executing a lawful warrant or process at an unlawful time, as on a Sunday; or in a place privileged from arrests, as in the verge of the king's court. This is the injury. The remedy is of two sorts; the one *removing* the injury, the other *making satisfaction* for it.

The means of *removing* the actual injury of false imprisonment are fourfold: 1. By writ of MAINPRIZE. 2. By writ *De* ODIO *et Atia*. 3. By writ *De* HOMINE *Replegiando*. 4. By writ of HABEAS *Corpus*. See those articles.

The *satisfactory* remedy for this injury of false imprisonment, is by an action of trespass *vi et armis*, usually called *an action of false imprisonment;* which is generally, and almost unavoidably, accompanied with a charge of assault and battery also; and therein the party shall recover damages for the injuries he has received; and also the defendant is, as for all other injuries committed with force, or *vi et armis*, liable to pay a fine to the king for the violation of the public peace.

IMPROMPTU, or INPROMPTU, a Latin word frequently used among the French, and sometimes in English, to signify a piece made off-hand, or *extempore*, without any previous meditation, by mere force and vivacity of imagination.

IMPROBATION, in *Scots Law*, the name of any action brought for setting any deed or writing aside upon the head of forgery.

IMPROPRIATION, in ecclesiastical law. See APPROPRIATION.

IMPULSION, in *Mechanical Philosophy*, a term employed for expressing a supposed peculiar exertion of the powers of body, by which a moving body changes the motion of another body by hitting or striking it. The plainest case of this action is when a body in motion hits another body at rest, and puts it in motion by the stroke. The body thus put in motion is said to be IMPELLED by the other; and this way of producing motion is called IMPULSION, to distinguish it from PRESSION, THRUSTING, or PROTRUSION, by which we push a body from its place without striking it. The term has been gradually extended to every *change* of motion occasioned by the collision of bodies. See MECHANICS.

IMPURITY, in the law of Moses, is any legal defilement. Of these there were several sorts. Some were voluntary, as the touching a dead body, or any animal that died of itself, or any creature that was esteemed unclean; or the touching things holy, by one who was not clean, or was not a priest; the touching one who had a leprosy, one who had a gonorrhœa, or who was polluted by a dead carcase, &c. Sometimes these impurities were involuntary; as when any one inadverteutly touched bones, or a sepulchre, or any thing polluted; or fell into such diseases as pollute, as the leprosy, &c.

Impurity ‖ Inanity.

The beds, clothes, and moveables, which had touched any thing unclean, contracted also a kind of impurity, and in some cases communicated it to others.

These legal pollutions were generally removed by bathing, and lasted no longer than the evening. The person polluted plunged over head in the water, and either had his clothes on when he did so, or washed himself and his clothes separately. Other pollutions continued seven days, as that which was contracted by touching a dead body. That of women in their monthly courses lasted till this was over with them. Other impurities lasted 40 or 50 days; as that of women who were lately delivered, who were unclean 40 days after the birth of a boy, and 50 after the birth of a girl. Others again lasted till the person was cured.

Many of these pollutions were expiated by sacrifices; and others by a certain water or ley made with the ashes of a red heifer, sacrificed on the great day of expiation. When the leper was cured, he went to the temple, and offered a sacrifice of two birds, one of which was killed and the other set at liberty. He who had touched a dead body, or had been present at a funeral, was to be purified with the water of expiation, and this upon pain of death. The woman who had been delivered, offered a turtle and a lamb for her expiation; or if she was poor, two turtles or two young pigeons.

These impurities, which the law of Moses has expressed with the greatest accuracy and care, were only figures of other more important impurities, such as the sins and iniquities committed against God, or faults committed against our neighbour. The saints and prophets of the Old Testament were sensible of this; and our Saviour, in the gospel, has strongly inculcated, that they are not outward and corporeal pollutions which render us unacceptable to God, but such inward pollutions as infect the soul, and are violations of justice, truth, and charity.

IMPUTATION, in general, the charging something to the account of one which belonged to another: thus, the assertors of original sin maintain, that Adam's sin is imputed to all his posterity.

In the same sense, the righteousness and merits of Christ are imputed to true believers.

INACCESSIBLE, something that cannot be approached, by reason of intervening obstacles, as a river, rock, &c. It is chiefly used in speaking of heights and distances. See MENSURATION.

INACHUS, founder of the kingdom of Argos, 1856 B. C. See ARGOS.

INALIENABLE, that which cannot be legally alienated or made over to another: thus the dominions of the king, the revenues of the church, the estates of a minor, &c. are inalienable, otherwise than with a reserve of the right of redemption.

INANIMATE, a body that has either lost its soul, or that is not of a nature capable of having any.

INANITION, among physicians, denotes the state of the stomach when empty, in opposition to repletion.

INANITY, the school term for emptiness or absolute

Inanity ‖ Incarnation.

solute vacuity, and implies the absence of all body and matter whatsoever, so that nothing remains but mere space.

INARCHING, in *Gardening*, a method of grafting, commonly called *grafting by approach*. See GARDENING *Index*.

INAUGURATION, the coronation of an emperor or king, or the consecration of a prelate: so called from the ceremonies used by the Romans, when they were received into the college of augurs.

INCA, or YNCA, a name given by the natives of Peru to their kings and the princes of the blood. Pedro de Cieca, in his Chronicles of Peru, gives the origin of the incas; and says, that that country was, for a long time, the theatre of all manner of crimes, of war, dissension, and the most dreadful disorders, till at last two brothers appeared, one of whom was called *Mangocapa;* of this person the Peruvians relate many wonderful stories. He built the city of Cuseo, made laws, established order and harmony by his wise regulations; and he and his descendants took the name of *inca*, which signifies king or great lord. These incas became so powerful, that they rendered themselves masters of all the country from Pasto to Chili, and from the river Maule on the south to the river Augasmago on the north; these two rivers forming the bounds of their empire, which extended above thirteen hundred leagues in length. This they enjoyed till the divisions between Inea Guascar and Atahalipa: which the Spaniards laying hold of, made themselves masters of the country, and destroyed the empire of the incas. See PERU.

INCAMERATION, a term used in the chancery of Rome, for the uniting of lands, revenues, or other rights, to the pope's domain.

INCANTATION, denotes certain ceremonies, accompanied with a formula of words, and supposed to be capable of raising devils, spirits, &c. See CHARM, &c.

INCAPACITY, in the canon-law, is of two kinds: 1. The want of a dispensation for age in a minor, for legitimation in a bastard, and the like: this renders the provision of a benefice void in its original. 2. Crimes and heinous offences, which annul provisions at first valid.

INCARNATION, in *Theology*, signifies the act whereby the Son of God assumed the human nature; or the mystery by which Jesus Christ, the eternal word, was made man, in order to accomplish the work of our salvation. The era used among Christians, whence they number their years, is the time of the incarnation, that is, of Christ's conception in the virgin's womb.

This era was first established by Dionysius Exignus, about the beginning of the sixth century, till which time the era of Dioclesian had been in use.

Some time after this, it was considered, that the years of a man's life were not numbered from the time of his conception, but from that of his birth: which occasioned them to postpone the beginning of this era for the space of one year, retaining the cycle of Dionysius entire in every thing else.

At Rome they reckon their years from the incarnation or birth of Christ, that is, from the 25th of December, which custom has obtained from the year 1431. In France, and several other countries, they also reckon from the incarnation: but then they differ from each other in the day of the incarnation, fixing it, after the primitive manner, not to the day of the birth, but conception of our Saviour; though the Florentines retain the day of the birth, and begin their year from Christmas. Incarnation ‖ Incense.

INCARNATION (formed from *in* and *caro* "flesh,") in *Surgery*, signifies the healing and filling up of ulcers and wounds with new flesh. See SURGERY.

INCARNATIVES, in *Surgery*, medicines which were supposed to assist nature in filling up wounds or ulcers with flesh.

INCENDIARY, in *Law*, is applied to one who is guilty of maliciously setting fire to another's dwelling-house, and all outhouses that are parcel thereof, though not contiguous to it, or under the same roof, as barns and stables. A bare intent or attempt to do this, by actually setting fire to a house, unless it absolutely burns, does not fall within the description of *incendit et combussit*. But the burning and consuming of any part is sufficient; though the fire be afterwards extinguished. It must also be a malicious burning; otherwise it is only a trespass. This offence is called *arson* in our law.

Among the ancients, criminals of this kind were to be burnt. *Qui ædes, acervumque frumenti juxta domum positum sciens, prudensque dolo malo combusserit, vinctus igni necatur.*

The punishment of *arson* was death by our ancient Saxon laws and by the Gothic constitutions: and in the reign of Edward I. incendiaries were burnt to death. The stat. 8 Hen. VI. c. 6. made the wilful burning of houses, under special circumstances, high treason; but it was reduced to felony by the general acts of Edward VI. and Queen Mary. This offence was denied the benefit of clergy by 21 Hen. VIII. c. 1. which statute was repealed by 1 Edw. VI. c. 12.: and arson was held to be ousted of clergy, with respect to the principal, by inference from the stat. 4 and 5 P. and M. c. 4. which expressly denied it to the accessory; though now it is expressly denied to the principal also, by 9 Geo. I. c. 22.

INCENSE, or FRANKINCENSE, in the *Materia Medica*, &c. a dry resinous substance, known among authors by the names THUS and OLIBANUM.

Incense is a rich perfume, with which the Pagans and the Roman Catholics still perfume their temples, altars, &c.—The word comes from the Latin *incensum*, q. d. *burnt;* as taking the effect for the thing itself.

The burning of incense made part of the daily service of the ancient Jewish church. The priests drew lots to know who should offer it: the destined person took a large silver dish, in which was a censer full of incense; and being accompanied by another priest carrying some live coals from the altar, went into the temple. There, in order to give notice to the people, they struck upon an instrument of brass placed between the temple and the altar; and being returned to the altar, he who brought the fire left it there, and went away. Then the offerer of incense having said a prayer to two, waited the signal, which was the burning of the holocaust; immediately upon which he set fire to the incense, the whole multitude continuing

ncense
h Colm.

all the time in prayer. The quantity of incense offered each day was half a pound in the morning and as much at night.

One reason of this continoal burning of incense might be, that the multitude of victims that were continually offered up, would have made the temple smell like a slaughter-house, and consequently have inspired the comers rather with disgust and aversion, than awe and reverence, had it not been overpowered by the agreeable fragrance of those perfumes.

INCEPTIVE, a word used by Dr Wallis to express such moments, or first principles, which, though of no magnitude themselves, are yet capable of producing such as are. Thus a point has no magnitude itself, but is inceptive of a line which it produces by its motion. So a line, though it have no breadth, is yet inceptive of breadth; that is, it is capable, by its motion, of producing a surface which has breadth, &c.

INCEST, the crime of venereal commerce between persons who are related in a degree wherein marriage is prohibited by the laws of the country.

Some are of opinion, that marriage ought to be permitted between kinsfolks, to the end that the affection so necessary in marriage might be heightened by this double tie: yet the rules of the church have formerly extended this prohibition even to the seventh degree; but time has now brought it down to the third or fourth degree.

Most nations look on incest with horror, Persia and Egypt alone excepted. In the history of the ancient kings of those countries we meet with instances of the brother's marrying the sister; the reason was, because they thought it too mean to join in alliance with their own subjects, and still more so to have married into any foreign family.

Incest, Spiritual, a crime committed in like manner between persons who have a spiritual alliance by means of baptism or confirmation.

Spiritual incest is also understood of a vicar, or other beneficiary, who enjoys both the mother and daughter; that is, holds two benefices, the one whereof depends upon the collation of the other.

Such a spiritual incest renders both the one and the other of these benefices vacant.

INCH, a well-known measure of length; being the twelfth part of a foot, and equal to three barley-corns in length.

Inch of Candle, (sale by). See CANDLE.

INCH (contracted from the Gaelic *innis*, "an island"), a word prefixed to the names of different places in Scotland and Ireland.

Inch Colm, or *Columba*, the isle of Columba, an island situated in the frith of Forth in Scotland, and famous for its monastery. See FORTH.

This monastery was founded about 1123, by Alexander I. on the following occasion. In passing the frith of Forth he was overtaken by a violent storm, which drove him to this island, where he met with the most hospitable reception from a poor hermit, then residing here in the chapel of St Columba, who, for the three days that the king remained there tempest-bound, entertained him with the milk of his cow, and a few shell-fish. His majesty, from the sense of the danger he had escaped, and in gratitude to the saint to whom he attributed his safety, vowed some token of respect; and accordingly founded here a monastery of Augustines, and dedicated it to St Columba. Allan de Mortimer, lord of Aberdour, who attended Edward III. in his Scotch expedition, bestowed half of those lands on the monks of this island, for the privilege of a family burial-place in their church. The buildings made in consequence of the piety of Alexander were very considerable. There are still to be seen a large square tower belonging to the church, the ruins of the church, and of several other buildings. The wealth of this place in the time of Edward III. proved so strong a temptation to his fleet, then lying in the Forth, as to suppress all the horror of sacrilege and respect to the sanctity of the inhabitants. The English landed, and spared not even the furniture more immediately consecrated to divine worship. But due vengeance overtook them; for in a storm which instantly followed, many of them perished; those who escaped, struck with the justice of the judgment, vowed to make ample recompense to the injured saint. The tempest ceased; and they made the promised atonement.—The Danish monument, figured by Sir Robert Sibbald, lies on the south-east side of the building, on a rising ground. It is of a rigid form, and the surface ornamented with scale-like figures. At each end is the representation of a human head.

Inch Colm
Inchoative verbs.

Inch Keith, a small island situated in the same frith, midway between the port of Leith and Kinghorn on the opposite shore. See FORTH.

This island is said to derive its name from the gallant Keith, who so greatly signalized himself by his valour in 1010, in the battle of Barry, in Angus, against the Danes; after which he received in reward the barony of Keith, in Lothian, and this little isle. In 1549 the English fleet, sent by Edward VI. to assist the lords of the congregation against the queen-dowager, landed, and began to fortify this island, of the importance of which they grew sensible after their neglect of securing the port of Leith, so lately in their power. They left here five companies to cover the workmen under the command of Cotterel; but their operations were soon interrupted by M. Desse, general of the French auxiliaries, who took the place, after a gallant defence on the part of the English. The Scots kept possessinn for some years; but at last the fortifications were destroyed by act of parliament, to prevent it from being of any use to the former. The French gave it the name of *L'isle des chevaux*, from its property of soon fattening horses. —In 1497, by order of council, all venereal patients in the neighbourhood of the capital were transported there, to prevent their disease from spreading, *ne quid detrimenti respublica caperet*. A lighthouse, which must prove highly beneficial to the shipping which frequent the Forth, was erected in 1805.

Inch Garvie, a small island, also lying in the frith of Forth, near Queensferry. See FORTH.

INCHANTMENT. See WITCHCRAFT.

INCHOATIVE, a term signifying the beginning of a thing or action; the same with what is otherwise called *inceptive*.

Inchoative verbs, denote, according to Priscian and other grammarians, verbs that are characterised by the

Inchoative ‖ Incombustible.

termination *sco* or *scor*, added to their primitives: as *augesco* from *augeo*, *calesco* from *caleo*, *dulcesco* from *dulcis*, *irascor* from *ira*, &c.

INCIDENCE, denotes the direction in which one body strikes on another. See OPTICS and MECHANICS.

Angle of INCIDENCE. See ANGLE.

INCIDENT, in a general sense, denotes an event, or a particular circumstance of some event.

INCIDENT, in *Law*, is a thing appertaining to, or following another that is more worthy or principal. A court baron is inseparably incident to a manor; and a court of pie powders to a fair.

Incident Diligence, in *Scots Law*, a warrant granted by a lord ordinary in the court of session for citing witnesses for proving any point, or for production of any writing necessary for preparing the cause for a final determination, or before it goes to a general proof.

INCIDENT, in a poem, is an episode, or particular action, joined to the principal action, or depending on it.

A good comedy is to be full of agreeable incidents, which divert the spectators, and form the intrigue. The poet ought always to make choice of such incidents as are susceptible of ornament suitable to the nature of his poem. The variety of incidents well conducted makes the beauty of an heroic poem, which ought always to take in a certain number of incidents to suspend the catastrophe, that would otherwise break out too soon.

INCINERATION, (derived from *in*, and *cinis*, "ashes,") in chemistry, the reduction of any substance into ashes by burning.

INCISIVE, an appellation given to whatever cuts or divides: thus, the fore teeth are called *dentes incisivi*, or cutters; and medicines of an attenuating nature, incidents, or incisive medicines.

INCLE, a kind of tape made of linen yarn.

INCLINATION, is a word frequently used by mathematicians, and signifies the mutual approach, tendency, or leaning of two lines or two planes towards each other, so as to make an angle.

INCLINATION, in a moral sense. See APPETITE.

INCLINED PLANE, in *Mechanics*, one that makes an oblique angle with the horizon. See MECHANICS.

INCOGNITO, or INCOG, is applied to a person who is in any place where he would not be known: but is more particularly applied to princes, or great men, who enter towns, or walk the streets, without their ordinary train or the usual marks of their distinction and quality.

INCOMBUSTIBLE CLOTH. See ASBESTOS, MINERALOGY *Index*. On this Cronstedt observes, that the natural store of the asbesti is in proportion to their economical use, both being very inconsiderable. "It is an old tradition (says he), that in former ages they made cloths of the fibrous asbesti, which is said to be composed of the word *byssus;* but it is not very probable, since if one may conclude from some trifles now made of it, as bags, ribbons, and other thing, such a dress could neither have an agreeable appearance, nor be of any conveniency or advantage. It is more probable that the Scythians dressed their dead bodies which were to be burned, in a cloth manufactured of this stone; and this perhaps has occasioned the above fable." M. Magellan confirms this opinion of Cronstedt's, and informs us that some of the Romans also inclosed dead bodies in cloth of this kind. In the year 1756 or 1757 he tells us, that he saw a large piece of asbestos cloth found in a stone tomb, with the ashes of a Roman, as appeared by the epitaph. It was kept, with the tomb also, if our author remembers rightly, in the right hand wing of the Vatican library at Rome. The under-librarian, in order to show that it was incombustible, lighted a candle, and let some drops of wax fall on the cloth, which he set on fire with a candle in his presence without any detriment to the cloth. Its texture was coarse, but much softer than he could have expected.

Incombustible ‖ Incorruptible.

INCOMBUSTIBLE, something that cannot be burnt or consumed by fire. See ASBESTOS.

INCOMMENSURABLE, a term in *Geometry*, used where two lines, when compared to each other, have no common measure, how small soever, that will exactly measure them both. And in general, two quantities are said to be incommensurable, when no third quantity can be found that is an aliquot part of both.

Incommensurable Numbers, are such as have no common divisor that will divide them both equally.

INCOMPATIBLE, that which cannot subsist with another without destroying it: thus cold and heat are incompatible in the same subject, the strongest overcoming and expelling the weakest.

INCONTINENCE, inordinacy of the sexual appetite; lust. It is the opposite of chastity. See CHASTITY and CONTINENCE.

INCONTINENCE, in the eye of the law, is of divers kinds; as in cases of bigamy, rapes, sodomy, or buggery, getting bastards; all which are punished by statute. See 25 Hen. VIII. cap. 6. 18 Eliz. cap. 7. 1 Jac. I. cap. 11. Incontinency of priests is punishable by the ordinary, by imprisonment, &c. 1 Hen. VII. cap. 4.

INCONTINENCE, in *Medicine*, signifies an inability in any of the organs to retain what should not be discharged without the concurrence of the will. It is most frequently applied to an involuntary discharge of urine. See MEDICINE *Index*.

INCORPORATION, in *Pharmacy*, is the reduction of dry substances to the consistence of a paste, by the admixture of some fluid: thus pills, boles, &c. are made by incorporation.

Incorporation, or *Body-Corporate*. See CORPORATION.

INCORPOREAL, spiritual; a thing, or substance, which has no body. Thus the soul of man is incorporeal, and may subsist independent of the body. See METAPHYSICS.

INCORRUPTIBLE, that which cannot be corrupted. Thus spiritual substances, as angels, human souls, &c. and thus also, glass, gold, mercury, &c. may be called *incorruptible*.

INCORRUPTIBLES, INCORUPTIBILES, the name of a sect which sprung out of the Eutychians.—Their distinguishing tenet was, that the body of Jesus Christ was incorruptible; by which they meant, that after and from the time wherein he was formed in the womb of his holy mother, he was not susceptible of any change or alteration; not even of any natural and innocent passions, as of hunger, thirst, &c. so that he

corrupti-ble ‖ denture.

ate without any occasion, before his death, as well as after his resurrection. And hence it was that they took their name.

INCRASSATING, in *Pharmacy*, &c. the rendering of fluids thicker by the mixture of other substances less fluid, or by the evaporation of the thinner parts.

INCUBATION, the action of a hen, or other fowl, brooding on her eggs. See HATCHING.

INCUBUS, NIGHT-MARE, a disease consisting in an oppression of the breast, so very violent, that the patient cannot speak or even breathe. The word is derived from the Latin *incubare*, to "lie down" on any thing and press it: the Greeks call it σφιάλης q. d. *saltator*, "leaper," or one that rusheth on a person.

In this disease the senses are not quite lost, but drowned and astonished, as is the understanding and imagination; so that the patient seems to think some huge weight thrown on him, ready to strangle him. Children are very liable to this distemper; so are fat people, and men of much study and application of mind: by reason the stomach in all these finds some difficulty in digestion.

INCUMBENT, a clerk or minister who is resident on his benefice; he is called *incumbent*, because he does, or at least ought to, bend his whole study to discharge the cure of his church.

INCURVATION of the RAYS of LIGHT, their bending out of a rectilinear straight course, occasioned by refraction. See OPTICS.

INCUS, in *Anatomy*, a bone of the internal ear, somewhat resembling one of the anterior dentes molares. See ANATOMY, N° 141.

INDEFEASIBLE, a term in law for what cannot be defeated or made void; as an indefeasible estate of inheritance, &c.

INDEFEASIBLE Right to the Throne. See *HEREDITARY Right.*

INDEFINITE, that which hath no certain bounds, or to which the human mind cannot affix any.

INDEFINITE, in *Grammar*, is understood of nouns, pronouns, verbs, participles, articles, &c. which are left in an uncertain indeterminate sense, and not fixed to any particular time, thing, or other circumstance.

INDELIBLE, something that cannot be cancelled or effaced.

INDEMNITY, in *Law*, the saving harmless; or a writing to secure one from all damage and danger that may ensue from any act.

INDENTED, in *Heraldry*, is when the outline of an ordinary is notched like the teeth of a saw.

INDENTURE, in *Law*, a writing which comprises some contract between two at least; being indented at top, answerable to another part which has the same contents. See DEED.

Independents.

INDEPENDENTS, a sect of Protestants, so called from their maintaining that each congregation of Christians, which meets in one house for public worship, is a complete church, has sufficient power to act and perform every thing relating to religious government within itself, and is in no respect subject or accountable to other churches.

Their origin.

The Independents, like every other Christian sect, derive their own origin from the practice of the apostles in planting the first churches; but they were unknown in modern times till they arose in England during the reign of Elizabeth. The hierarchy established by that princess in the churches of her dominions, the vestments worn by the clergy in the celebration of divine worship, the book of common prayer, and above all the sign of the cross used in the administration of baptism, were very offensive to many of her subjects, who during the persecution of the former reign had taken refuge among the Protestants of Germany and Geneva. Those men thought that the church of England resembled, in too many particulars, the antichristian church of Rome; and they called perpetually for a more thorough reformation and a *purer* worship. From this circumstance they were stigmatized by their adversaries with the general name of *Puritans*, as the followers of Novatian (A) had been in the ancient church. Elizabeth was not disposed to comply with their demands; and it is difficult to say what might have been the issue of the contest, had the Puritans been united among themselves in sentiments, views, and measures. But the case was quite otherwise. That large body, composed of persons of different ranks, characters, opinions, and intentions, and unanimous in nothing but in their antipathy to the forms of doctrine and discipline that were established by law, was all of a sudden divided into a variety of sects. Of these the most famous was that which was formed about the year 1581 by *Robert Brown*, a man insinuating in his manners, but unsteady and inconsistent in his views and notions of men and things. See BROWN.

This innovator differed not in point of doctrine either from the church of England, or from the rest of the Puritans; but he had formed notions, then new and singular, concerning the nature of the church and the rules of ecclesiastical government. He was for dividing the whole body of the faithful into separate societies or congregations; and maintained, that such a number of persons as could be contained in an ordinary place of worship ought to be considered as a *church*, and enjoy all the rights and privileges that are competent to an ecclesiastical community. These small societies he pronounced *independent jure divino*, and entirely exempt from the jurisdiction of the bishops, in whose hands the court had placed the reins of spiritual government; and also from that of presbyterics

(A) The followers of Novatian were called *Puritans*, because they would not communicate with the Catholic church, under pretence that her communion was polluted by admitting those to the sacred mysteries who through infirmity had sacrificed to idols in times of persecution. These unhappy men were not received by the church, till after a long course of penance. The Novatians would not receive them at all, however long their penance, or however sincere their sorrow, for their sin. In other respects, the ancient Puritans were, like the English, orthodox in the faith, and of irreproachable morals.

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and synods, which the Puritans regarded as the supreme visible sources of ecclesiastical authority. He also maintained, that the power of governing each congregation resided in the people; and that each member had an equal share in this government, and an equal right to order matters for the good of the whole society. Hence all points both of doctrine and discipline were submitted to the discussion of the whole congregation; and whatever was supported by a majority of voices passed into a law. It was the congregation also that elected certain of the brethren to the office of pastors, to perform the duty of public instruction, and the several branches of divine worship; reserving, however, to themselves the power of dismissing these ministers, and reducing them to the condition of private members, whenever they should think such a change conducive to the spiritual advantage of the community. It is likewise to be observed, that the right of the pastors to preach was by no means of an exclusive nature, or peculiar to them alone; since any member that thought proper to exhort or instruct the brethren, was abundantly indulged in the liberty of *prophesying* to the whole assembly. Accordingly, when the ordinary teacher or pastor had finished his discourse, all the other brethren were permitted to communicate in public their sentiments and illustrations upon any useful or edifying subject.

The zeal with which BROWN and his associates maintained and propagated these notions was in a high degree intemperate and extravagant. He affirmed, that all communion was to be broken off with those religious societies that were founded upon a different plan from his; and treated, more especially, the church of England, as a spurious church, whose ministers were unlawfully ordained, whose discipline was popish and antichristian, and whose sacraments and institutions were destitute of all efficacy and virtue. The sect of this hot-headed innovator, not being able to endure the severe treatment which their own violence had brought upon them from an administration that was not distinguished by its mildness and indulgence, retired into the Netherlands, and founded churches at Middlebourg in Zealand, and at Amsterdam and Leyden in the province of Holland; but their establishments were neithes solid nor lasting. Their founder returned into England; and having renounced his principles of separation, took orders in the established church, and obtained a benefice. The Puritan exiles, whom he thus abandoned, disagreed among themselves, were split into parties, and their affairs declined from day to day. This engaged the wiser part of them to mitigate the severity of their founder's plan, and to soften the rigour of his uncharitable decisions.

2 And progress.

The person who had the chief merit of bringing about this reformation was one of their pastors called *John Robinson*, a man who had much of the solemn piety of the times, and no inconsiderable portion of learning. This well-meaning reformer, perceiving the defects that reigned in the discipline of Brown, and in the spirit and temper of his followers, employed his zeal and diligence in correcting them, and in new-modelling the society in such a manner as to render it less odious to its adversaries, and less liable to the just censure of those true Christians, who looked upon charity as the end of the commandments. Hitherto the sect had been called *Brownists;* but Robinson having, in his Apology, affirmed, *Cœtum quemlibet particularem, esse totam, integram, et perfectam ecclesiam ex suis partibus constantem immediatè et* INDEPENDENTER *(quoad alias ecclesias) sub ipso Christo;*—the sect was henceforth called *Independents*, of which the apologist was considered as the founder. Independents.

The Independents were much more commendable than the Brownists. They surpassed them both in the moderation of their sentiments, and in the order of their discipline. They did not, like Brown, pour forth bitter and uncharitable invectives against the churches which were governed by rules entirely different from theirs, nor pronounce them on that account unworthy of the Christian name. On the contrary, though they considered their own form of ecclesiastical government as of divine institution, and as originally introduced by the authority of the apostles, nay by the apostles themselves; they had yet candour and charity enough to acknowledge, that true religion and solid piety might flourish in those communities which were under the jurisdiction of bishops or the government of synods and presbyteries. This is put beyond all doubt by Robinson himself, who expresses his own private sentiments and those of his community in the following clear and precise words: "*Profitemur coram Deo et hominibus, adeo nobis convenire cum ecclesiis reformatis Belgicis in re religionis, ut omnibus et singulis earundem ecclesiarum fidei articulis, prout habentur in harmonia confessionum fidei, parati simus subscribere. Ecclesias reformatas pro veris et genuinis habemus, cum iisdem in sacris Dei communionem profitemur, et, quantum in nobis est, colimus.* They were also much more attentive than the Brownists, in keeping on foot a regular ministry in their communities: for while the latter allowed promiscuously all ranks and orders of men to teach in public, the Independents had, and still have, a certain number of ministers, chosen respectively by the congregations where they are fixed; nor is any person among them permitted to speak in public, before he has submitted to a proper examination of his capacity and talents, and been approved of by the heads of the congregation.

This religious society still subsists, and has produced divines as eminent for learning, piety, and virtue, as any church in Christendom. It is now distinguished from the other Protestant communities chiefly by the two following circumstances.

3 In what they are now distinguished from other Protestants.

1. The Independents reject the use of all creeds and confessions drawn up by fallible men, requiring of their teachers no other test of orthodoxy than a declaration of their belief in the gospel of Jesus, and their adherence to the Scriptures as the sole standard of faith and practice.

2. They attribute no virtue whatever to the rite of ordination, upon which some other churches lay so much stress; for the Independents declare, that the qualifications which constitute a regular minister of the New Testament, are, a firm belief in the gospel, a principle of sincere and unaffected piety, a competent stock of knowledge, a capacity for leading devotion and communicating instruction, a serious inclination to engage in the important employment of promoting the everlasting salvation of mankind, and ordinarily an invitation to the pastoral office from some particular society

Independents. ciety of Christians. Where these things concur, they consider a person as fitted and authorised for the discharge of every duty which belongs to the ministerial function; and they believe that the imposition of the hands of bishops or presbyters would convey to him no powers or prerogatives of which he was not before possessed.

When the reformers separated from the church of Rome, they drew up public confessions of faith or articles of religion, to which they demanded subscription from their respective followers. Their purpose in this was to guard against dangerous heresies, to ascertain the meaning of Scripture-language, and, we doubt not, to promote the unity of the spirit in the bond of peace. These were laudable ends; but of the means chosen for attaining them, the late Dr Taylor of Norwich, the glory of the Independent churches, and whose learning would have done honour to any church, expresses his opinion in the following indignant language: "How much so ever the Christian world valueth these creeds and confessions, I confess, for my own part, that I have no opinion of them. But we are told that they were generally drawn up by the ablest divines. But what evidence is there of this? are divines in vogue and power commonly the most knowing and upright? But granting that the reformers were in those days the ablest divines; the ablest divines educated in popish schools, notwithstanding any pretended learning, might comparatively be very weak and defective in scripture knowledge, which was a thing in a manner new to them. In times of great ignorance they might be men of eminence; and yet far short of being qualified to draw up and decide the true and precise rules of faith for all Christians. Yea, their very attempting to draw up, decide, and establish, such rules of faith, is an incontestable evidence of their surprising ignorance and weakness. How could they be able divines, when they imposed upon the consciences of Christians their own decisions concerning gospel-faith and doctrine? Was not this in fact to teach and constrain Christians to depart from the most fundamental principle of their religion, *subjection and allegiance to Christ, the only teacher and lawgiver?* But if they were able men, were they infallible? No: they publicly affirmed their own fallibility; and yet they acted as if they had been infallible, and could not be mistaken in prescribing faith and doctrine.

4 Their arguments against the use of creeds.

"But even if they were infallible, who gave them commission to do what the Spirit of God had done already? Could the first reformers hope to deliver the truths of religion more fully and more clearly than the Spirit of God? Had they found out more apt expressions than had occurred to the Holy Spirit? The Son of God 'spake not of himself; but as the Father said unto him, so he spake,' (John xii. 50.). 'The Spirit of truth spake not of himself; but whatsoever he heard, that he spake,' John xvi. 13.). 'The things of God the apostles spake, not in the words which man's wisdom teacheth, but which the Holy Ghost teacheth.' (1 Cor. ii. 13.). If the Christian revelation was thus handed down to us from the Fountain of Light with so much care and exactness, both as to matter and words, by the *Son of God*, by the *Spirit*, and by the *apostles;* who were the ancient doctors and bishops? or who were the first reformers? or who were any synods or assemblies of *divines*, that they *dared* to model Christian faith into their own invented forms, and impose it upon the minds of men in their own devised terms and expressions? Independents.

"Hath Christ given authority to all his ministers to the end of the world, to new-mould his doctrines by the rules of human learning whenever they think fit? or hath he delegated his power to any particular persons; Neither the one nor the other. His doctrines are not of such a ductile nature; but stand fixed, both as to matter and words, in the Scripture. And it is at any man's *peril*, who pretends to put them, *as they are rules of faith*, into any new dress or shape. I conclude, therefore, that the first reformers, and all councils, synods, and assemblies, who have met together to collect, determine, and decide, to prescribe and impose matters pertaining to Christian faith, have acted without any warrant from Christ, and therefore have invaded the prerogative of him who is the sole Prophet and Lawgiver to the church. Peace and unity, I know, is the pretended good design of those creeds and confessions. But as God never sanctified them for these ends, so all the world knows they have produced the contrary effect; discord, division, and the spilling of whole seas of Christian blood for 1400 years together."

Such sentiments as these are now maintained by Christians of various denominations; but they were first avowed by the Independents, to whom therefore the merit or demerit of bringing them to light properly belongs. Our readers will think differently of them according to their preconceived opinions; but it is not our province either to confirm or to confute them. They rise almost necessarily out of the independent scheme of congregational churches; and we could not suppress them without deviating from our fixed resolution of doing justice to all religious parties, as well those from whom we differ as those with whom we agree. It ought not, however, to be rashly concluded, that the Independents of the present age, merely because they reject the use of all creeds of human composition, doubt or disbelieve the doctrines deemed orthodox in other churches. Their predecessors in the last century were thought to be more rigid Calvinists than the Presbyterians themselves; as many of those may likewise be who in the present century admit not the confessions and formulas of the Calvinistic churches. They acknowledge as divine truth every doctrine contained in the Scriptures; but they think that scripture-doctrines are most properly expressed in scripture-language; and the same spirit of religious liberty, which makes them reject the authority of bishops and synods in matters of discipline, makes them reject the same authority in matters of faith. In either case, to call any man or body of men their masters, would, in their opinion, be a violation of the divine law, since, "one is their master, even Christ, and they are all brethren."

5 Not therefore necessarily heterodox.

6 Their arguments for the independency of congregational churches.

In support of their scheme of congregational churches, they observe, that the word εκκλησια, which we translate *church*, is always used in Scripture to signify either a *single congregation*, or the *place* where a single congregation meets. Thus that unlawful assembly at Ephesus brought together against Paul by the craftsmen, is called εκκλησια, *a church*, (Acts xix. 32, 39, 41.). The word, however, is generally applied to a more sacred

use;

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use; but still it signifies either the *body* assembling, or the *place* in which it assembles. The whole body of the disciples at Corinth is called *the church*, and spoken of as coming together into *one place*, (1 Cor. xiv. 23.) The place into which they came together we find likewise called *a church;* "when ye come together in the *church*,—when ye come together into one place," (1 Cor. ix. 18. 20.). Wherever there were more congregations than one, there were likewise more *churches* than one: Thus, "Let your women keep silence in the *churches*," εν ταις εκκλησιαις, (1 Cor. xi. 18.). The whole nation of Israel is indeed called a *church*, but it was no more than a single congregation; for it had but one place of public worship, viz. first the tabernacle, and afterwards the temple. The Catholic church of Christ, his holy nation and kingdom, is likewise a single congregation, having one place of worship, viz. *heaven*, where all the members assemble by faith and hold communion; and in which, when they shall all be fully gathered together, they will in fact be one glorious assembly. We find it called "the general assembly and church of the first-born, whose names are written in heaven."

Besides these, the Independent can find no other description of a church in the New Testament; not a trace of a diocese or presbytery consisting of several congregations all subject to one jurisdiction. The number of disciples in Jerusalem was certainly great before they were dispersed by the persecution in which Paul bore so active a part: yet they are never mentioned as forming distinct assemblies, but as *one* assembly meeting with its elders in *one place;* sometimes in the temple, sometimes in Solomon's porch, and sometimes in an upper room. After the dispersion, the disciples who fled from Jerusalem, as they could no longer assemble in one place, are never called a church by themselves, or *one* church, but the *churches* of Judea, Samaria, and Galilee, (Acts ix. 31. Gal. i. 22.). Whence the Independent concludes, that in Jerusalem the words *church* and *congregation* were of the same import; and if such was the case there, where the gospel was first preached, he thinks we may reasonably expect to find it so in other places. Thus when Paul on his journey calls the elders of the church of Ephesus to Miletus, he speaks to them as the joint overseers of a single congregation: "Take head to yourselves, and to all the flock, over which the Holy Ghost hath made you overseers," (Acts xxi. 28.). Had the church at Ephesus consisted of different congregations united under such a jurisdiction as that of a modern presbytery, it would have been natural to say, "Take heed to yourselves, and to the *flocks* over which the Holy Ghost hath made you overseers:" but this is a way of speaking of which the Independent finds not an instance in the whole New Testament. The sacred writers, when speaking of all the Christians in a nation or province, never call them *the church* of such a nation or province, but *the churches* of Galatia (Gal. i. 2.), *the churches* of Macedonia (2 Cor. viii. 1.), *the churches* of Asia (1 Cor. xvi. 10.). On the other hand, when speaking of the disciples in a city or town, who might ordinarily assemble in one place, they uniformly call them *a church;* saying, the church of Antioch, the church at Corinth, the church of Ephesus, and the like.

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7 In each congregation more than one elder or presbyter, whose office is to reach as well as govern.

In each of these churches or congregations there were *elders* or *presbyters* and *deacons;* and in every church there seems to have been more than one elder, in some a great many, "who all laboured in word and doctrine." Thus we read (Acts xiv. 23.) of Paul and Barnabas ordaining *elders* in every church; and (Acts xx. 17.) of a *company* of elders in the church of Ephesus, who were exhorted to "*feed* the flock, and to take heed to themselves and to all the flock over which the Holy Ghost had made them overseers:" but of such elders as are to be found in modern presbyterian churches, who neither teach nor are apt to teach, the Independent finds no vestige in the Scriptures, nor in the earliest uninspired writers of the Christian church. The rule or government of this presbytery or eldership in a church is not their own, but Christ's. They are not lords over God's heritage, nor can they pretend to more power over the disciples than the apostles had. But when the administration of the apostles in the church of Jerusalem, and other churches where they acted as elders, is inquired into by an Independent, it does not appear to him that they did any thing of common concern to the church without the consent of the multitude; nay, it seems they thought it necessary to judge and determine in discipline in presence of the whole church (Acts vi. 1—6. xv. 22. 1 Cor. v. 3, 4, 5.) Excommunication and absolution were in the power of the *church* at Corinth, and not of the elders as distinguished from the congregation (1 Cor. v. 2 Cor. ii.). The apostle indeed speaks of his delivering some unto Satan (1 Tim. i. 20.): but it is by no means clear that he did it by himself, and not after the manner pointed at 1 Cor. v. 4, 5; even as it does not appear, from his saying, in one epistle, that the gift was given unto Timothy by the putting on of *his* hands, that this was not done in the *presbytery* of a church, as in the other epistle we find it actually was. The trying and judging of false apostles was a matter of the first importance: but it was done by the elders with the flock at Ephesus (Rev. ii. 2. Acts xx. 28.); and that whole flock did in the days of Ignatius all partake of the Lord's supper, and pray together in one (B) place. Even the power of binding and loosing, or the power of the *keys*, as

8 Excommunication and absolution in the power of each congregation.

(B) The evidence upon which this is said by Mr Glass (for the whole of this reasoning is extracted from his works) is probably the following passage in the epistle of Ignatius to the Ephesians: Ει γαρ ενος και δευτερου προσευχη, "For if the prayer of one or two be of such force as we are told, how much more prevalent must that be which is made by the bishop and the whole church? He then that does not come together into the *same place* with it, is proud, and hath condemned himself; for it is written, God resisteth the proud. Let us not therefore resist the bishop, that we may be the servants of God." The sentence, as it thus stands by itself, certainly countenances Mr Glass's scheme; but the reader who thinks any regard due to the testimony of Ignatius, will do well to peruse the whole epistle as published by Vossius.

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as it has been called, was by our Saviour conferred not upon a particular order of disciples, but upon the *church:* "If thy brother shall trespass against thee, go and tell him his fault between thee and him alone: if he shall hear thee, thou hast gained thy brother. But if he will not hear thee, then take with thee one or two more, that in the mouth of one or two witnesses every word may be established. And if he shall neglect to hear them, tell it unto the church: but if he neglect to hear the *church*, let him be unto thee as an heathen man and a publican. Verily I say unto you, whatsoever ye shall bind on earth, shall be bound," &c. (St Mat. xviii. 15, 16, 17, 18.). It is not said, if he shall neglect to hear the one or two, tell it to the *elders* of the church; far less can it be meant that the offended person should tell the cause of his offence to *all* the disciples in a presbytery or diocese consisting of many congregations: but he is required to tell it to that particular *church* or *congregation* to which they both belong; and the sentence of that assembly, pronounced by its elders, is in a very solemn manner declared to be final, from which there lies no appeal to any jurisdiction on earth.

9 Of which the sentence is final.

10 What constitutes elders in a church.

With respect to the *constituting* of elders in any church or congregation, the Independent reasons in the following manner: The officers of Christ's appointment are either ordinary and permanent in the church, or they were extraordinary and peculiar to the planting of Christianity. The extraordinary were those who were employed in laying the plan of the gospel churches, and in publishing the New Testament revelation. Such were the apostles, the chosen witnesses of our Saviour's resurrection; such were the prophets inspired by the Holy Ghost for explaining infallibly the Old Testament by the things written in the New; and such were the evangelists, the apostles ministers. These can be succeeded by none in that which was peculiar to them, because their work was completed by themselves. But they are succeeded in all that was not peculiar to them by elders and deacons, the only two ordinary and permanent orders of ministers in the church. We have already seen, that it belongs to the office of the elder to feed the flock of Christ: and the only question to be settled is, how men are ordinarily called to that office? for about the office of the deacon there is little or no dispute. No man now can pretend to be so called of God to the ministry of the word as the apostles and other inspired elders were, whom he chose to be the publishers of his revealed truth, and to whose mission he bore witness in an extraordinary manner. But what the apostles were to those who had the divine oracles from their mouths, that their writings are to us; and therefore as no man can lawfully pretend a call from God to make any addition to those writings, so neither can any man pretend to be lawfully called to the ministry of the word already written but in the manner which that word directs. Now there is nothing of which the New Testament speaks more clearly than of the *characters* of those who should exercise the office of elders in the church, and of the actual exercise of that office. The former are graphically drawn in the epistles to Timothy and Titus; and the latter is minutely described in Paul's discourse to the Ephesian elders, in Peter's exhortation to elders, and our Lord's commission to those ministers, with whom he promised to be always present even unto the end of the world. It is not competent for any man or body of men to add to, or diminish from, the description of a gospel minister given in these places, so as to insist upon the necessity of any qualification which is not there mentioned, or to dispense with any qualification as needless which is there required. Neither has Jesus Christ, the only legislator to the church, given to any ministers or people any power or right whatsoever to call, send, elect, or ordain, to that office, any person who is not qualified according to the description given in his law; nor has he given any power or right to reject the least of them who are so qualified, and who desire the office of a bishop or elder. Let a man have hands laid upon him by such as could prove an uninterrupted descent by imposition of hands from the apostles; let him be set apart to that office by a company of ministers themselves, the most conformable to the scripture character, and let him be chosen by the most holy people on earth; yet if he answer not the New Testament description of a minister, he is not called of God to that office, and is no minister of Christ, but is indeed running unsent. No form of ordination can pretend to such a clear foundation in the New Testament as the description of the persons who should be elders of the church; and the laying on of hands, whether by bishops or presbyters, is of no more importance in the mission of a minister of Christ, than the waving of one's hand in the air or the putting of it into his bosom; for now when the power of miracles has ceased, it is obvious that such a rite, by whomsoever performed, can convey no powers, whether ordinary or extraordinary. Indeed it appears to have been sometimes used, even in the apostolic age, without any such intention. When Paul and Barnabas were separated to the particular employment of going out to the Gentiles, the prophets and teachers at Antioch "prayed and laid their hands on them:" But did this ceremony confer upon the two apostles any new power or authority to act as ministers of Christ? Did the imposition of hands make those shining lights of the gospel one whit better qualified than they were before to convert and baptize the nations, to feed the flock of God, to teach, rebuke, or exhort, with all long-suffering and doctrine. It cannot be pretended. Paul and Barnabas had undoubtedly received the Holy Ghost before they came to Antioch; and as they were apostles, they were of course authorized to discharge all the functions of the inferior and ordinary ministers of the gospel. In a word, whoever in his life and conversation is conformable to the character which the inspired writers give of a bishop or elder, and is likewise qualified by his "mightiness in the scripture" to discharge the duties of that office, is fully authorized to administer the sacraments of baptism and the Lord's supper, to teach, exhort, and rebuke, with all long-suffering and doctrine, and has all the call and mission which the Lord now gives to any man; whilst he who wants the qualifications mentioned, has not God's call, whatever he may have, nor any authority to preach the gospel of Christ, or to dispense the ordinances of his religion.

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11 Arguments against the efficacy of every kind of ministerial ordination,

12 and even against the necessity of a popular call.

From this view of the Independent principles, which is faithfully taken from their own writers, it appears, that, according to them, even the election of a congregation

Independents. gation confers upon the man whom they may choose for their pastor no new powers, but only creates a new relation between him and a particular flock, giving him an exclusive right, either by himself or in conjunction with other pastors constituted in the same manner, to exercise among them that authority which he derives immediately from Christ, and which in a greater or less degree is possessed by every sincere Christian according to his gifts and abilities. Were the ministers of the gospel constituted in any other way than this; by imposition of hands, for instance, in succession from the apostles; the case of Christians would, in the opinion of the Independents, be extremely hard, and the ways of God scarcely equal. We are strictly commanded not to forsake the assembling of ourselves together, but to continue stedfast in the apostles doctrine and fellowship, and in the breaking of bread, and in prayer: "but can any man (asks one of their advocates) bring himself to believe, that what he is commanded to do in point of gratitude, what is made his own personal act, an act expressive of certain dutiful and pious affections, can possibly be restricted to the intermediate offices or instrumentality of others, who act by powers which he can neither give nor take away? To suppose a thing necessary to my happiness, which is not in my own power, or wholly depends upon the good pleasure of another, over whom I have no authority, and concerning whose intentions and dispositions I can have no security, is to suppose a constitution the most foolish and ill-natured, utterly inconsistent with our ideas of a wise and good agent." Such are some of the principal arguments by which the Independents maintain the divine right of congregational churches, and the inefficacy of ministerial ordination to constitute a minister of Christ. We mean not to remark upon them, as the reader will find different constitutions of the church pleaded for under the words PRESBYTERIANS and EPISCOPACY, to which we refer him for farther satisfaction. We shall only observe at present, what it would be affectation to pass unnoticed, that the mode of reasoning adopted by the last quoted advocate for the Independents, if pushed as far as it will go, necessarily leads to consequences which will not readily be admitted by a Christian of any denomination, or indeed by a serious and consistent Theist. Independents // Index.

INDETERMINATE, in general, an appellation given to whatever is not certain, fixed, and limited; in which sense it is the same with *indefinite*.

INDEX, in *Anatomy*, denotes the fore-finger. It is thus called from *indico*, "I point or direct;" because that finger is generally so used: whence also the extensor indicis is called *indicator*.

INDEX, in *Arithmetic* and *Algebra*, shows to what power any quantity is involved, and is otherwise called its *exponent*. See ALGEBRA.

INDEX of a Book, is that part annexed to a book, referring to the particular matter or passages therein contained.

INDEX of a Globe, is a little style fitted on to the north pole, and turning round with it, pointing to certain divisions in the hour-circle. It is sometimes also called *gnomon*. See GLOBE.

Expurgatory INDEX, a catalogue of prohibited books in the church of Rome.

By a bull of Clement VIII. in 1595, the use of the Scriptures in the vulgar tongue is forbidden to all persons without a particular license; and it is ordained, that no book shall be printed at Rome without the approbation of the Pope's vicar, or some person delegated by the Pope; nor in any other places, unless allowed by the bishop of the diocese, or some person deputed by him, or by the inquisitor of heretical pravity.

INDIA.

India. INDIA. See HINDOSTAN.—By the name of *India* the ancients understood only the western peninsula, on this side the Ganges, and the peninsula beyond it, having little or no knowledge of the countries which lie farther to the eastward; though by the moderns all those vast tracts from the eastern parts of the Persian empire to the islands of Japan, are confounded under the general name of *East Indies*. Even the ancients, though originally they were acquainted only with the western parts of Hindostan, gradually extended the name of *India* over the other countries they discovered to the eastward; so that probably they would have involved all the rest in the same general designation, had they been as well acquainted with them as the moderns are. By whom these countries were originally peopled, is a question which in all probability will never be resolved. Certain it is, that some works in these parts discover marks of astonishing skill and power in the inhabitants, such as the images in the island of Elephanta; the rocking stones of immense weight, yet so nicely balanced that a man can move them with his hand; the observatory at Benares, &c. These stupendous works are by Mr Bryant attributed to the Cushites or Babylonians, the first distinct nation in the world, and who of consequence must for some time have possessed in a manner the sovereignty of the whole earth; and it can by no means appear improbable, that the subjects of Nimrod, *the beginning* of whose kingdom was in Shinar, might extend themselves eastward, and thus fill the fertile regions of the east with inhabitants, without thinking it worth while for a long time to meddle with the less mild and rich countries to the westward. Thus would be formed that great and for some time insuperable division betwixt the inhabitants of India and other countries; so that the western nations knew not even of the existence of the Indians but by obscure report; while the latter, ignorant of their own origin, invented a thousand idle tales concerning the antiquity of their nation, which some of the moderns have been credulous enough to believe and regard as facts. India.

1 Conjecture concerning the peopling of India.

2 Why the Indians and western nations were ignorant of one another.

The first among the western nations who distinguished

India.

ed themselves by their application to navigation and commerce, and who were of consequence likely to discover these distant nations, were the Egyptians and Phœnicians. The former, however, soon lost their inclination for naval affairs, and held all seafaring people in detestation as profane persons; though the extensive conquests of Sesostris, if we can believe them, must have in a great measure supplied this defect. Without regard to the prejudice of his people against maritime affairs, he is said to have fitted out a fleet of 400 sail in the Arabian gulf or Red sea, which conquered all the countries lying along the *Erythrean sea* (A) to India; while the army led by himself marched through Asia, and subdued all the countries to the Ganges; after which he crossed that river, and advanced to the eastern ocean.

3 Account of the expedition of Sesostris to India.

4 Dr Robertson's reasons for disbelieving it.

Great disputes have been carried on with respect to this conqueror, and the famous expedition just now related; but the learned Dr Robertson, in his *Disquisition concerning ancient India*, declares himself in doubt whether any such expedition ever was made, for the following reasons. 1. Few historical facts seem to be better established than that of the aversion the Egyptians entertained to seafaring people and naval affairs; and the Doctor considers it as impossible even for the most powerful monarch to change in a few years a national habit confirmed by time and sanctified by religion. The very magnitude of the armaments is an argument against their existence; for besides the 400 ships of war, he had another fleet in the Mediterranean; and such a mighty navy could not have been constructed in any nation unaccustomed to maritime affairs, in a few years. 2. Herodotus makes no mention of the conquests of India by Sesostris, though he relates his history at some length. Our author is of opinion that the story was fabricated betwixt the time of Herodotus and that of Diodorus Siculus, from whom we have the first account of this expedition. Diodorus himself informs us that he had it from the Egyptian priests; and gives it as his opinion, that "many things they related flowed rather from a desire to promote the honour of their country than from attention to truth:" and he takes notice that both the Egyptian priests and Greek writers differ widely from one another in the accounts which they give of the actions of Sesostris. 3. Though Diodorus declares that he has selected the most probable parts of the Egyptian narrative, yet there are still so many improbabilities, or rather impossibilities, contained in his relation, that we cannot by any means give credit to it. 4. For the reason just mentioned, the judicious geographer Strabo rejected the account altogether, and ranks the exploits of Sesostris in India with the fabulous ones of Bacchus and Hercules.

5 Intercourse of the Tyrians with India.

But whatever may be determined with regard to the Egyptians, it is certain that the Tyrians kept up a constant intercourse with some parts of India by navigating the Arabian gulf, now the Red sea. Of this navigation they became masters by taking from the Idumeans some maritime places on the coast of the Red sea: but as the distance betwixt the nearest place of that sea and Tyre was still considerable, the land-carriage would have been very tedious and expensive; for which reason it was necessary to become masters of a port on the eastern part of the Mediterranean, nearer to the Red sea than Tyre, that so the goods might be shipped from thence to Tyre itself. With this view they took possession of Rhinocolura, the nearest port on the Mediterranean to the Arabian gulf; and to that port all the goods from India were conveyed by a much shorter and less expensive route than over land.—This is the first authentic account of any intercourse betwixt India and the western part of the world; and to this we are without doubt in a great measure to ascribe the vast wealth and power for which the city of Tyre was anciently renowned; for in other respects the whole territory of Phenicia was but of little consequence. Notwithstanding the frequency of these voyages, however, the ancients are able to give little or no account of them. The most particular description we have of the wealth, power, and commerce of ancient Tyre, is in the prophecies of Ezekiel; so that if the Tyrians themselves kept any journals of their voyages, it is probable that they were entirely lost when the city was destroyed by Alexander the Great.

India.

6 The Jews did not visit India.

Though the Jews, under the reigns of David and Solomon, carried on an extensive and lucrative commerce, yet our author is of opinion that they did not trade to any part of India. There are only two places mentioned to which their ships sailed, viz. Ophir and Tarshish; both of which are now supposed to have been situated on the eastern coast of Africa: the ancient Tarshish, according to Mr Bruce, was the present Mocha; and Ophir, the kingdom of Sofala, so remarkable in former times for its mines, that it was called by Oriental writers the *golden* Sofala *.

* See *Ophir* and *Tarshish*.

Thus the Indians continued for a long time unknown to the western nations, and undisturbed by them; probably in subjection to the mighty empire of Babylon, from which the country was originally peopled, or in alliance with it; and the possession of this vast region will easily account for the immense and otherwise almost incredible wealth and power of the ancient Babylonish monarchs. Soon after the destruction of that monarchy by the Persians, however, we find their monarch Darius Hystaspes undertaking an expedition against the Indians †. His conquests were not extensive, as they did not reach beyond the territory watered by the Indus; nevertheless, such as they were, the acquisition seems to have been very important, as the revenue derived from the conquered territory, according to Herodotus, was near a third of that of the whole Persian empire. According to his account, however, we must form a much more diminutive opinion of the riches of the Persian monarch than has commonly been done; since Herodotus tells us, that the empire was divided into 20 satrapies or governments; all of which yielded

7 Conquests of the Persians in India.

† See *Hindostan*, N° 2.

(A) This must not be confounded with the *Red sea*; notwithstanding the similarity of names. The *Erythrean* sea was that part of the ocean which is interposed betwixt the straits of Babelmandel and the Malabar coast, now called the *Indian* sea or ocean.

India. yielded a revenue of 14,560 Euboic talents, amounting in the whole to 2,807,437l. sterling. The amount of the revenue from the conquered provinces of India, therefore, must have been considerably short of a million. Very little knowledge of the country was diffused by the expedition of Darius, or the voyage of Scylax whom he employed to explore the coast; for the Greeks paid no regard to the transactions of those whom they called *Barbarians*; and as for Scylax himself, he told so many incredible stories in the account he gave of his voyage, that he had the misfortune to be disbelieved in almost every thing, whether true or false.

8 Of Alexander the Great. The expedition of Alexander is so fully taken notice of under the article HINDOSTAN, that nothing more remains to be said upon it in this place, than that he went no farther into the country than the present territory of the Panjab, all of which he did not traverse. Its south-west boundary is formed by a river anciently called the *Hysudrus*, now the *Setlege*. The breadth of the district from Ludhana on the Setlege, to Attock on the Indus, is computed to be 259 geographical miles in a straight line; and Alexander's march, computed in the same manner, did not exceed 200; nevertheless, by the spreading of his numerous army over the country, and the exact measurement and delineation of all his movements by men of science whom he employed, a very extensive knowledge of the western part of India was obtained. It is, however, surprising that having marched through so many countries in the neighbourhood of India, where the people must have been well acquainted with the nature of the climate, the Macedonian conqueror did not receive any information concerning the difficulties he would meet with from the rains which fell periodically at a certain season of the year. It was the extreme distress occasioned by them which made his soldiers finally resolve to proceed no farther; and no wonder indeed that they did adopt this resolution, since Diodorus informs us, that it had rained incessantly for 70 days before their departure. These rains, however, according to the testimony both of ancient and modern writers, fall only in the mountainous parts, little or none being ever seen in the plains. Aristobulus informs us, that in the country through which Alexander marched, though heavy rains fell among the mountains, not a shower was seen in the plains below. The district is now seldom visited by Europeans; but Major Rennel was informed by a person of credit, who had resided in the Panjab, that during great part of the S. W. monsoon, or at least in the months July, August, and part of September, which is the rainy season in most other parts of India, very little rain falls in the Delta of the Indus, except very near the sea, though the atmosphere is generally clouded, and very few showers fall throughout the whole season. Captain Hamilton relates, that when he visited Tatta, no rain had fallen there for three years before. We may have some idea of what the Macedonians suffered, by what happened afterwards to Nadir Shah, who, though possessed of vast wealth and power, as well as great experience in military affairs, yet lost a great part of his army in crossing the mountains and rivers of the Panjab, and in battles with the savage inhabitants who inhabit the countries betwixt the Oxus and the frontiers of Persia. He marched through the same countries, and nearly in the same direction, that Alexander did. India.

By his voyage down the river Indus, Alexander contributed much more to enlarge our geographical knowledge of India than by all his marches and conquests by land. According to Major Rennel, the space of country through which he sailed on the Indus, from the Hyphasis to the ocean, was not less than 1000 miles; and as, during the whole of that navigation, he obliged the nations on both sides the river to submit to him, we may be very certain that the country on each side was explored to some distance. An exact account not only of his military operations, but of every thing worthy of notice relating to the countries through which he passed, was preserved in the journals of his three officers, Lagus, Nearchus, and Aristobulus; and these journals, Arrian informs us, he followed in the composition of his history. From these authors we learn, that in the time of Alexander, the western part of that vast tract named *India* was possessed by seven very powerful monarchs. The territory of King Porus, which Alexander first conquered, and then restored to him, is said to have contained no fewer than 2000 towns; and the king of the Prasii had assembled an army of 20,000 cavalry, 2000 armed chariots, and a great number of elephants, to oppose the Macedonian monarch on the banks of the Ganges. The navigable rivers with which the Panjab country abounds, afforded then, and still continue to afford, an intercourse from one part to another by water: and as at that time these rivers had probably many ships on them for the purposes of commerce, Alexander might easily collect all the number he is said to have had, viz. 2000; since it is reported that Semiramis was opposed by double the number on the Indus when she invaded India. When Mahmud Gazni also invaded this country, a fleet was collected upon the Indus to oppose him, consisting of the same number of vessels. From the Ayeen Akbery, also, we learn that the inhabitants of this part of India still continue to carry on all their communication with each other by water; and the inhabitants of the circar of Tatta alone have 40,000 vessels of various constructions.

9 State of India in the time of Alexander.

10 Why Alexander's historians take no notice of the voyage of Scylax. Under the article HINDOSTAN we have mentioned Major Rennel's opinion concerning the silence of Alexander's historians about the expedition of Scylax; but Dr Robertson accounts for it in another manner. "It is remarkable (says he), that neither Nearchus, nor Ptolemy, nor Aristobulus, nor even Arrian, once mention the voyage of Scylax. This could not proceed from their being unacquainted with it, for Herodotus was a favourite author in the hands of every Greek who had any pretensions to literature. It was probably occasioned by the reasons they had to distrust the veracity of Scylax, of which I have already taken notice. Accordingly, in a speech which Arrian puts in the mouth of Alexander, he asserts, that, except Bacchus, he was the first who had passed the Indus; which implies that he disbelieved what is related concerning Scylax, and was not acquainted with what Darius Hystaspes is said to have done in order to subject that part of India to the Persian crown. This opinion is confirmed by Megasthenes, who resided a considerable time in India. He asserts that, except Bacchus and Hercules (to whose fabulous expeditions Strabo is astonished

India. astonished that he should have given any credit), Alexander was the first who had invaded India. Arrian informs us that the Assaceni, and other people who inhabited the country now called *Candahar*, had been tributary first to the Assyrians and then to the Medes and Persians. As all the fertile provinces on the north-west of the Indus were anciently reckoned to be part of India, it is probable that what was levied from them is the sum mentioned in the tribute-roll from which Herodotus drew his account of the annual revenue of the Persian empire, and that none of the provinces to the south of the Indus were ever subject to the kings of Persia."—The Doctor differs from Mr Rennel with respect to the surprise which Alexander and his army expressed when they saw the high tides at the mouth of the Indus. This he thinks might very naturally have been the case, notwithstanding what Herodotus had written concerning the flux and reflux observable in the Red sea. All that has been mentioned by Herodotus concerning this phenomenon is, that "in the Red sea there is a regular ebb and flow of the tide every day." No wonder, therefore, that the Macedonians should be surprised and terrified at the very high tides which presented themselves in the Indian ocean, which the few words of Herodotus above-mentioned had by no means led them to expect. In the like manner the Romans were surprised at the tides in the Atlantic, when they had conquered some of the countries bordering upon that ocean. Cæsar describes the astonishment of his soldiers at a spring tide in Britain which greatly damaged his fleet; and, indeed, considering the very little rise of the tide in the Mediterranean, to which alone the Greeks and Romans had access, we may reckon the account given us by Arrian highly probable.

The country on each side the Indus was found, in the time of Alexander, to be in no degree inferior in population to the kingdom of Porus already mentioned. The climate, soil, and productions of India, as well as the manners and customs of the inhabitants, are exactly described, and the descriptions found to correspond in a surprising manner with modern accounts. The stated change of seasons now known by the name of *monsoons*, the periodical rains, the swellings and inundations of the rivers, with the appearance of the country during the time they continue, are particularly described. The descriptions of the inhabitants are equally particular; their living entirely upon vegetable food, their division into tribes or casts, with many of the particularities related under the article HINDOO, are to be met with in the accounts of Alexander's expedition. His military operations, however, extended but a very little way into India properly so called; no farther indeed than the modern province of Lahor, and the countries on the banks of the Indus from Moultan to the sea; though, had he lived to undertake another expedition as he intended, it is very probable that he would have subdued a vastly greater tract of country; nor indeed could any thing probably have set bounds to his conquests but death or revolts in distant provinces of his empire. In order to secure the obedience of those countries he subdued, Alexander found it necessary to build a number of fortified cities; and the farther eastward he extended his conquests, the more necessary did he find this task. Three he built in India itself; two on the banks of the Hydaspes, and a third on the Acesines, both navigable rivers, falling into the Indus after they have united their streams. By means of these cities he intended not only to keep the adjacent countries in awe, but to promote a commercial intercourse betwixt different parts both by land and water. With this view, also, on his return to Susa, he surveyed in person the course of the Euphrates and Tigris, causing the cataracts or dams to be removed which the Persian monarchs had built to obstruct the navigation of these rivers, in conformity to a maxim of their superstition, that it was unlawful to defile any of the elements, which they imagined was done by navigators. After the navigation was opened in this manner, he proposed that the valuable commodities of India should be imported into the other parts of his dominions by means of the Persian gulf; while through the Red sea they were conveyed to Alexandria in Egypt, and thence dispersed all over Europe.

11 Cities built by Alexander in India.

India.

The death of Alexander having put an end to all his great schemes, the eastern part of his dominions devolved first on Pytho the son of Agenor, and afterwards on Seleucus. The latter was very sensible of the advantages to be derived from keeping India in subjection. With this view he undertook an expedition into that country, partly to establish his authority more perfectly, and partly to defend the Macedonian territorities against Sandracottus king of the Prasii, who threatened to attack them. The particulars of his expedition are very little known; Justin being the only author that mentions them, and his authority is but of little weight, unless corroborated by the testimony of other historians. Plutarch, who tells us that Seleucus carried his arms farther into India than Alexander, is subject to an imputation of the same kind; but Pliny, whose authority is of considerably greater weight, corroborates the testimony of Plutarch in this instance, though his words are so obscure, that learned men differ in opinion concerning their meaning. Bayer thinks they imply that Seleucus marched from the Hyphasis, the boundary of Alexander's conquests, to the Hysudrus, from thence to Palibothra, and then to the mouth of the Ganges; the distances of the principal stations being marked, and amounting in all to 2244 Roman miles. Notwithstanding this authority, however, Dr Robertson thinks it very improbable that the expedition of Seleucus should have continued so long, as in that case "the ancients would have had a more accurate knowledge of that part of the country than they seem ever to have possessed."

12 Expedition of Seleucus to India.

The career of Seleucus in the east was stopped by Antigonus, who prepared to invade the western part of his dominions. The former was therefore obliged to conclude a treaty with Sandracottus, whom he allowed to remain in quiet possession of his territories: but Dr Robertson is of opinion, that during the lifetime of Seleucus, which continued 42 years after the death of Alexander, no diminution of the Macedonian territories took place. With a view of keeping up a friendly intercourse with the Indian prince, Seleucus sent Megasthenes, one of Alexander's officers, to Palibothra, capital of the kingdom of the Prasii, situated on the banks of the Ganges. This city is by Dr Robertson supposed to be the modern Allahabad, seated at the conflux of the Jumna and Ganges, contrary

13 Conjectures concerning the situation of Palibothra.

India.

trary to the opinion of Major Rennel, who supposes it to be Patna*. As Megasthenes resided in this city for a considerable space of time, he had an opportunity of making many observations on the country of India in general; and these observations he was induced afterwards to publish. Unhappily, however, he mingled with his relations the most extravagant fables. To him may be traced the ridiculous accounts of men with ears so large that they could wrap themselves up in them; of tribes with one eye, without mouths or noses, &c. whence the extracts from his book given by Arrian, Diodorus, and other ancient writers, can scarcely be credited, unless confirmed by other evidence.

* See *Hindostan*, n° 4.

After the embassy of Megasthenes to Sandracottus, and that of his son Damaichus to Allitrochidas, the successor of Sandracottus, we hear no more of the affairs of India with regard to the Macedonians, until the time of Antiochus the Great, who made a short incursion into India about 197 years after the death of Seleucus. All that we know of this expedition is, that the Syrian monarch, after finishing a war he carried on against the two revolted provinces of Parthia and Bactria, entered India, where he obliged Sophagasenus, king of the country which he invaded, to pay a sum of money, and give him a number of elephants. It is probable that the successors of Seleucus were obliged soon after his death to abandon all their Indian territories.

14 Expedition of Antiochus the Great into India.

After the loss of India by the Syrians, an intercourse was kept up for some time betwixt it and the Greek kingdom of Bactria. This last became an independent state about 69 years after the death of Alexander; and, according to the few hints we have concerning it in ancient authors, carried on a great traffic with India. Nay, the Bactrian monarchs are said to have conquered more extensive tracts in that region than Alexander himself had done. Six princes reigned over this new kingdom in succession; some of whom, elated with the conquests they had made and the power they had acquired, assumed the title of *Great King*, by which the Persian monarchs were distinguished in their highest splendour. Strabo informs us, that the Bactrian princes were deprived of their territories by the Scythian Nomades, who came from the country beyond the Jaxartes, and were known by the names of Assi, Pasiani, Tachari, and Scarauli. This is confirmed by the testimony of some Chinese historians quoted by M. de Guignes. According to them, about 126 years before the Christian era, a powerful horde of Tartars, pushed from their native seats on the confines of China, and obliged to move farther to the west, passed the Jaxartes, and, pouring in upon Bactria like an irresistible torrent, overwhelmed that kingdom, and put an end to the dominion of the Greeks after it had lasted near 130 years.

15 Account of the Grecian kingdom of Bactria.

From this time to the close of the 15th century, all thoughts of establishing any dominion in India were totally abandoned by the Europeans. The only object now was to promote a commercial intercourse with that country: and Egypt was the medium by which that intercourse was to be promoted. Ptolemy the son of Lagus, and first king of Egypt, first raised the power and splendour of Alexandria, which he knew had been built by Alexander with a view to carry on a trade to India: and in order to make the navigation more secure, he built the celebrated light-house at Pharos; a work so magnificent as to be reckoned one of the wonders of the world. His son Ptolemy Philadelphus prosecuted the same plan very vigorously. In his time the Indian commerce once more began to centre in Tyre; but to remove it effectually from thence, he formed a canal between Arsinoe on the Red sea, not far from the place where Suez now stands, and the Pelusiac or eastern branch of the Nile. This canal was 100 cubits broad and 30 deep; so that by means of it the productions of India might have been conveyed to Alexandria entirely by water. We know not whether this work was ever finished, or whether it was found useless on account of the dangerous navigation towards the northern extremity of the Red sea; but whatever was the cause, it is certain that no use was made of it, and a new city named Berenice, situated almost under the tropic, upon the western shore of the Red sea, became the staple of Indian commerce. From thence the goods were transported by land to Coptos, a city distant only three miles from the Nile, to which it was joined by a navigable canal. Thus, however, there was a very tedious land carriage of no less than 258 Roman miles through the barren desert of Thebais: but Ptolemy caused diligent search to be made everywhere for springs, and wherever these were found, he built inns or caravanseras for the accommodation of travellers; and thus the commerce with India was carried on till Egypt became subject to the Romans. The ships during this period set sail from Berenice, and coasting along the Arabian shore to the promontory of Syagrus, now Cape Rasalgate, held their course along the coast of Persia till they arrived at the mouth of the western branch of the river Indus. They either sailed up this branch till they came to Pattala, now Tatta, situated at the upper part of the Delta, or continued their course to some other emporium on the western part of the Indian coast. A more convenient course was afterwards found by sailing directly to Zizenis, a place concerning which there is now some dispute. Montesquieu will have it to be the kingdom of Sigertis, on the coast adjacent to the Indus, and which was conquered by the Bactrian monarchs; but Major Rennel is of opinion that it was a port on the Malabar coast. Dr Robertson does not pretend to decide this dispute; but is of opinion, that during the time of the Ptolemies very little progress was made in the discovery of India. He contests the opinion of Major Rennel, that "under the Ptolemies the Egyptians extended their navigation to the extreme point of the Indian continent, and even sailed up the Ganges to Palibothra, now Patna." In this case he thinks that the interior parts of India must have been much better known to the ancients than we have any reason to believe they were. He owns indeed that Strabo mentions the sailing up the Ganges, but then it is only cursorily and in a single sentence; "whereas if such a considerable inland voyage of above 400 miles, through a populous and rich country, had been customary, or even if it had been ever performed by the Roman, Greek, or Egyptian traders, it must have merited a particular description, and must have been mentioned by Pliny, and other writers, as there was nothing similar to it in the practice of navigation among the ancients."—The extreme danger of navi-

16 Intercourse betwixt Egypt and India.

India.

gating the Red sea in ancient times (which even in the present improved state of navigation is not entirely gnt over) seems to have been the principal reason which induced Ptolemy to remove the communication with India frnm Arsinoe to Berenice, as there were other harbours on the same coast considerably nearer to the Nile. After the ruin of Coptos by the emperor Dioclesian, the Indian commodities were conveyed from the Red sea to the Nile from Cosseir, supposed by Dr Robertson to be the *Philoteras Portus* of Ptolemy, to Cous, the *Vicus Apollinus*, a journey of four days. Hence Cous from a small village became an opulent city; but in process of time, the trade from India removed from Cous to Kenè, farther down the river. In modern times such Indian goods as are brought by the Red sea come from Gidda to Suez, and are carried across the isthmus on camels, or brought by the caravan returning from the pilgrimage to Mecca.

17 Why the Syrian monarchs did not attempt to rival the Egyptians.

It was to this monopoly of Indian cnmmerce that Egypt owed its vast wealth and power during the time of its Macedonian monarchs; but it appears surprising that no attempt was made by the Syrian monarchs to rival them in it, especially as the latter were in possession of the Persian gulf, from whence they might have imported the Indian commodities by a much shorter navigation than could be done by the Egyptians. For this neglect several reasons are assigned by our learned author. 1. The Egyptians, under their Greek monarchs, applied themselves to maritime affairs; and were in possession of such a powerful fleet as gave them a decided superiority at sea. 2. No intercourse by sea was ever kept up betwixt Persia and India, on account of the aversion which the Persians had to maritime affairs. All the Indian commodities were then conveyed in the most tedious and difficult manner over land, and dispersed throughout the various provinces, partly by means of navigable rivers and partly by means of the Caspian sea. 3. Many of the ancients, by an unaccountable error in geography, imagined the Caspian sea to be a part of the great nurthern ocean; and thus the kings of Syria might hope to convey the Indian commodities to the European countries without attempting to navigate those seas which the Egyptian monarchs deemed their own property. Seleucus Nicator, the first and greatest of the Syro-Macedonian monarchs, formed a project of joining the Euxine and Caspiau seas by a navigable canal, which would have effectually answered the purpose, but was assassinated before he could put it in execution, and none of his successors had abilities to execute such an undertaking.—Alexander the Great had given orders, a little before his death, to fit out a squadron on the Caspian sea, in order to discover whether it had any communication with the northern ocean, the Euxine sea, or Indian ocean; but Dr Robertson justly thinks it surprising that such errors concerning this sea should have existed among the ancients, as Herodotus had long before described it properly in the following words: The Caspian is a sea by itself, unconnected with any other. Its length is as much as a vessel with oars can sail in 15 days; and its greatest breadth as much as it can sail in eight days." Aristotle describes it in like manner, and insists that it ought to be called a great lake, and not a sea.

On the conquest of Egypt by the Romans, the Indian commodities continued as usual to be imported to Alexandria in Egypt, and from thence to Rome; but besides this, the most aucient communication betwixt the eastern and western parts of Asia seems never to have been entirely given up. Syria and Palestine are separated from Mesopotamia by a desert; but the passage through it was much facilitated by its affording a station which abounded in water. Hence the possession of this station became an object of such consequence, that Solomon built upon it the city called in Syria *Tadmor*, and in Greek *Palmyra*. Both these names are expressive of its situation in a spot adorned with palm-trees. Though its situation for trade may to us seem very unfavourable (being 60 miles frnm the Euphrates, by which alone it could receive the Indian commodities, and 203 from the nearest coast of the Mediterranean), yet the value and small bulk of the goods in question rendered the conveyance of them by a long carriage over land not only practicable but lucrative and advantageous. Hence the inhabitants became opulent and powerful, and long maintained its independence even after the Syrian empire became subject to Rome. After the reduction of Palmyra by the emperor Aurelian, however, it did not any more recover its splendour; the trade gradually turned into other channels, and the city was reduced to ruins, which still exist, and manifest its former grandeur. See PALMYRA.

India.

18 Intercourse of the Romans with India.

The excessive eagerness of the Romans for Asiatic luxuries of all kinds kept up an unceasing intercourse with India during the whole time that the empire continued in its power; and even after the destruction of the western part, it was kept up betwixt Constantinople and those parts of India which had been visited formerly by merchants from the western empire. Long before this period, however, a much better method of sailing to India had been discovered by one Hippalus the commander of an Indian ship, who lived about 80 years after Egypt had been annexed to the Roman empire. This man having nbserved the periodical shifting of the monsoons, and how steadily they blew from the east or west during some months, ventured to leave the coast, and sail boldly across the Indian ocean from the mouth of the Arabian gulf to Musiris, a port on the Malabar coast; which discovery was reckoned a matter of such importance, that the name of Hippalus was given to the wind by which he performed the voyage. Pliny gives a very particular account of the manner in which the Indian traffic was now carried on, mentioning the particular stages, and the distances between them, which are as follow. From Alexandria to Juliopolis was two miles; and there the cargo destined for India was shipped on the Nile, and carried to Coptos, distant 303 miles, the voyage being usually performed in twelve days. From Coptos they were conveyed by land to Berenice, distant 258 miles, and halting at different stations as occasion required. The journey was finished on the 12th day; but by reason of the heat the caravan travelled only in the night. The ships left Berenice about midsummer, and in 30 days reached Ocelis, now *Gella*, at the mouth of the Arabian gulf, or Cane (now *Cape Fartaque*) on the coast of Arabia Felix: from whence they sailed in 40 days to Musiris already mentioned. Their homeward voyage began early in the month of December; when setting sail with

19 New route to India discovered by Hippalus.

India. with a north-east wind, and meeting with a south or south-west one when they entered the Arabian gulf, the voyage was completed in less than a year. With regard to the situation of Musiris, as well as of Barace, another Indian port to which the ancients traded, Major Rennel is of opinion, and Dr Robertson agrees with him, that they stood somewhere between Goa and Tellicherry; and that probably the modern Meerzaw or Merjee is the Musiris, and Barcelore the Barace of the ancients.

20 Ptolemy's account of India.

Ptolemy, who flourished about 200 years after the commencement of the Christian era, having the advantage of so many previous discoveries, gives a more particular description of India than what is to be met with in any of the ancient writers; notwithstanding which, his accounts are frequently inconsistent not only with modern discoveries, but with those of more ancient geographers than himself. A most capital error in his geography is, that he makes the peninsula of India stretch from the Sinus Barygazenus, or gulf of Cambay, from west to east, instead of extending, according to its real direction, from north to south; and this error must appear the more extraordinary, when we consider that Megasthenes had published a measurement of this peninsula nearly consonant to truth, which had been adopted with some variations by Eratosthenes, Strabo, Diodorus Siculus, and Pliny. His information concerning the situation of places, however, was much more accurate. With respect to some districts on the eastern part of the peninsula, as far as the Ganges, he comes nearer the truth than in his descriptions of any of the rest. These are particularly pointed out by M. D'Anville, who has determined the modern names of many of Ptolemy's stations, as Kilkare, Negapatam, the mouth of the river Cauveri, Masulipatam, &c. The river Cauveri is the *Chabaris* of Ptolemy; the kingdom of Arcot, *Arcati Regio;* and probably, says Dr Robertson, the whole coast has received its present name of Coromandel from *Sor Mandulam*, or the kingdom of Soræ, which is situated upon it. Ptolemy had likewise acquired so much knowledge concerning the river Ganges, that he describes six of its mouths, though his delineation of that part of India which lies beyond the Ganges is hardly less erroneous than that of the nearer peninsula. M. D'Anville, however, has been at great pains to elucidate those matters, and to illustrate those parts of the writings of Ptolemy which appear to be best founded. According to him, the Golden Chersonesus of Ptolemy is the peninsula of Malacca; he supposes the gulf of Siam to be the great bay of Ptolemy; and the Sinæ Metropolis of the same writer he looks upon to be Sin-hoa in the western part of the kingdom of Cochin-China, though Ptolemy has erred in its situation no less than 50 degrees of longitude and 20 of latitude. M. Gosselin, however, differs from his countryman M. D'Anville, in a late work intitled "The Geography of the Greeks analysed; or the systems of Eratosthenes, Strabo, and Ptolemy, compared with each other, and with the knowledge which the moderns have acquired." In the opinion of M. Gosselin, the Magnum Promontorium of Ptolemy is not Cape Romania at the southern extremity of the peninsula of Malacca, as M. D'Anville supposes, but the point Bragu, at the mouth of the river Ava. The great bay of Ptolemy he supposes not to be the gulf of Siam, but of Martaban. He endeavours to prove that the position of Cattipnara, as laid down by Ptolemy, corresponds with that of Mergui, a sea-port on the west of Siam; and that *Thinæ*, or *Sinæ Metropolis*, is not Sin-hoa, but Tana-serim, a city on the same river with Mergui; and he contends, that the Ibbadii insula of Ptolemy is not Sumatra, as D'Anville would have it, but one of the small isles which lie in a cluster off this coast. M. Gosselin is of opinion that the ancients never sailed through the straits of Malacca, nor had any knowledge of the island of Sumatra, or of the eastern ocean. India.

The errors of Ptolemy have given occasion to a mistake of more modern date, viz. that the ancients were acquainted with China. This arose from the resemblance betwixt the name of that empire and the *Sinæ* of the ancients. The Ayeen Akbery informs us, that *Cheen* was an ancient name of Pegu; whence, says Dr Robertson, "as that country borders upon Ava, where M. Gosselin places the great promontory, this near resemblance of names may appear perhaps to confirm his opinion that Sinæ Metropolis was situated on this coast, and not so far east as M. D'Anville has placed it."

21 Boundary of the navigation of the ancients.

Thus we see that the peninsula of Malacca was in all probability the boundary of the ancient discoveries by sea; but by land they had correspondence with countries still farther distant. While the Seleucidæ continued to enjoy the empire of Syria, the trade with India continued to be carried on by land in the way already mentioned. The Romans having extended their dominions as far as the river Euphrates, found this method of conveyance still established, and the trade was by them encouraged and protected. The progress of the caravans being frequently interrupted by the Parthians, particularly when they travelled towards those countries where silk and other of the most valuable manufactures were procured, it thence became an object to the Romans to conciliate the friendship of the sovereigns of those distant countries. That such an attempt was actually made, we know from the Chinese historians, who tell us, that *Antoun*, by whom they mean the emperor Marcus Antoninus, the king of the people of the western ocean, sent an embassy to Ounti, who reigned in China in the 166th year of the Christian era; but though the fact is mentioned, we are left entirely in the dark as to the issue of the negociations. It is certain, however, that during the times of the Romans such a trade was carried on; and as we cannot suppose all those who visited that distant region to be entirely destitute of science, we may reasonably enough conclude, that by means of some of these adventurers, Ptolemy was enabled to determine the situation of many places which he has laid down in his geography, and which correspond very nearly with the observations of modern times.

22 New Indian islands discovered by the ancients.

With regard to the Indian islands, considering the little way they extended their navigation, they could not be acquainted with many of them. The principal one was that of Ceylon, called by the ancients *Taprobane*. The name was entirely unknown in Europe before the time of Alexander the Great; but that conqueror, though he did not visit, had some how or other heard of it; with regard to any particulars, however, he seems to have been very slenderly informed; and the accounts of ancient geographers concerning it are confused

confused and contradictory. Strabo says, it is as large as Britain, and situated at the distance of seven days according to some reports, or 20 days sailing according to others, from the southern extremity of the peninsula. Pomponius Mela is uncertain whether to consider Taprobane as an island, or the beginning of another world; but inclines to the latter opinion, as nobody had ever sailed round it. The account of Pliny is still more obscure; and by this description he would make us believe, that it was seated in the southern hemisphere beyond the tropic of Capricorn. Ptolemy places it opposite to Cape Comorin, at no great distance from the continent; but errs greatly with regard to its magnitude, making it no less than 15 degrees in length from north to south. And Agathemarus, who wrote after Ptolemy, makes Taprobane the largest island in the world, assigning the second place to Britain. From these discordant accounts, some learned men have supposed that the Taprobane of the ancients is not Ceylon, as is generally believed, but the island of Sumatra; though the description of it by Ptolemy, with the figure delineated in his maps, seems to put it beyond a doubt, that Ceylon, and not Sumatra, is the island to which Ptolemy applies the designation of Taprobane. The other islands described by that geographer to the eastward of Tabrobane, are, according to Dr Robertson, those called *Andaman* and *Nicobar* in the gulf of Bengal.

From the time of Ptolemy to that of the emperor Justinian, we have no account of any intercourse of the Europeans with India, or of any progress made in the geographical knowledge of the country. Under that emperor one Cosmas, an Egyptian merchant, made some voyages to India, whence he acquired the surname of *Indicopleustes*. Having afterwards turned monk, he published several works; one of which, named *Christian Topography*, has reached us. In this, though mixed with many strange reveries, he relates with great simplicity and appearance of truth what he had seen in his travels or had learned from others. He describes several places on the western coast of the hither peninsula, which he calls the chief seat of the pepper-trade; and from one of the ports on that coast, named *Male*, Dr Robertson thinks that the name *Malabar* may probably be derived, as well as that of *Maldives* given to a cluster of islands lying at no great distance. Cosmas informs us also, that in his time the island of Taprobane had become a great staple of trade. He supposed it to lie about half way betwixt the Persian gulf and the country of the Sinæ; in consequence of which commodious situation it received the silk of the Sinæ, and the precious spices of the remote regions of the east, which were from thence conveyed to all parts of India, Persia, and the Arabian gulf. He calls it not *Taprobane*, but *Sieldibia*, derived from *Selendib*, or *Serendib*, the same by which it is still known all over the east. From him also we learn, that the Persians having overthrown the empire of the Parthians, applied themselves with great diligence and success to maritime affairs; in consequence of which they became formidable rivals to the Romans in the Indian trade. The latter finding themselves thus in danger of losing entirely that lucrative branch, partly by reason of the rivalship just mentioned, and partly by reason of the frequent hostilities which took place between the two empires, formed a scheme of preserving some share of the trade by means of his ally the emperor of Abyssinia. In this he was disappointed, though afterwards he obtained his end in a way entirely unexpected. This was by means of two monks who had been employed as missionaries in different parts of the east, and had penetrated as far as the country of the Seres or China. From thence, induced by the liberal promises of Justinian, they brought a quantity of the eggs of the silk-worms in a hollow cane. They were then hatched by the heat of a dunghill; and being fed with the leaves of the mulberry, worked and multiplied as well as in those countries of which they are natives. Vast numbers were soon reared in Greece; from whence they were exported to Sicily, and from thence to Italy; in all which countries silk manufactures have since been established.

23 Voyages of Cosmas to India.

24 Silk-worms introduced into Europe.

On the conquest of Egypt by the Saracens in the year 640, the India trade was of course transferred to them; and they soon began to pursue it with much more vigour than the Romans had done. The city of Bassora was built by the caliph Omar upon the western banks of the great river formed by the union of the Euphrates with the Tigris. Thus the command of both rivers was secured, and the new city soon became a place of such consequence as scarce to yield to Alexandria itself. Here Dr Robertson takes notice, that from the evidence of an Arabian merchant who wrote in the year 851, it appears, that not only the Saracens, but the Chinese also, were destitute of the mariners compass; contrary to the general opinion, that this instrument was known in the east long before it made its appearance in Europe. From this relation, as well as much concurring evidence, says our author, "it is manifest, that not only the Arabians but the Chinese were destitute of this faithful guide, and that their mode of navigation was not more adventurous than that of the Greeks and Romans. They steered servilely along the coast, seldom stretched out to sea so far as to lose sight of land; and as they shaped their course in this timid manner, their mode of reckoning was defective, and liable to the same errors with that of the Greeks and Romans." Notwithstanding this disadvantage, however, they penetrated far beyond Siam, which had set bounds to the navigation of the Europeans. They became acquainted with Sumatra and other Indian islands; extending their navigation as far as the city of Canton in China. A regular commerce was now carried on from the Persian gulf to all the countries lying betwixt it and China, and even with China itself. Many Saracens settled in India properly so called, and in the countries beyond it. In the city of Canton particularly, they were so numerous, that the emperor permitted them to have a cadi or judge of their own religion; the Arabian language was understood and spoken in every place of consequence; and ships from China are even said to have visited the Persian gulf.

25 Intercourse of the Saracens with India.

26 Chinese ignorant of the use of the mariners compass.

According to the Arabian accounts of those days, the peninsula of India was at that time divided into four kingdoms. The first was composed of the provinces situated on the Indus and its branches, the capital of which was Moultan. The second had the city of Canoge, which, from the ruins of it remaining at this day, appears to have been a very large place. The

27 State of India when visited by the Arabians.

Indian

India. Indian historians relate, that it contained 30,000 shops in which betel nut was sold, and 60,000 sets of musicians and singers who paid a tax to government. The third kingdom was that of Cachimere, first mentioned by Massoudi, who gives a short description of it. The fourth kingdom, Guzerat, is represented by the same author as the most powerful of the whole. Another Arab writer, who flourished about the middle of the 14th century, divides India into three parts; the northern, comprehending all the provinces on the Indus; the middle, extending from Guzerat to the Ganges; and the southern, which he denominates Comar, from Cape Comorin.

From the relation of the Arabian merchant above mentioned, explained by the commentary of another Arabian who had likewise visited the eastern parts of Asia, we learn many particulars concerning the inhabitants of these distant regions at that time, which correspond with what is observed among them at this day. They take notice of the general use of silk among the Chinese; and the manufacture of porcelain, which they compare to glass. They also describe the tea plant, with the manner of using its leaves; whence it appears, that in the ninth century the use of this plant in China was as common as it is at present. They mention likewise the great progress which the Indians had made in astronomy; a circumstance which seems to have been unknown to the Greeks and Romans: they assert, that in this branch of science the Indians were far superior to the most enlightened nations of the west, on which account their sovereign was called the "King of wisdom." The superstitions, extravagant penances, &c. known to exist at this day among the Indians, are also mentioned by those writers; all which particulars manifest that the Arabians had a knowledge of India far superior to that of the Greeks or Romans. The zeal and industry of the Mohammedans in exploring the most distant regions of the east was rivalled by the Christians of Persia, who sent missionaries all over India and the countries adjoining, as far as China itself. But while the western Asiatics thus kept up a constant intercourse with these parts, the Europeans had in a manner lost all knowledge of them. The port of Alexandria, from which they had formerly been supplied with the Indian goods, was now shut against them; and the Arabs, satisfied with supplying the demands of their own subjects, neglected to send any by the usual channels to the towns on the Mediterranean. The inhabitants of Constantinople, and some other great towns, were supplied with Chinese commodities by the most tedious and difficult passage imaginable. The silk of that country was purchased in the most westerly province named Chensi; from whence it was conveyed by a caravan, which marched 80 or 100 days, to the banks of the Oxus. Here it was embarked, and carried down the river to the Caspian sea; whence, after a dangerous voyage across that sea, it was carried up the river Cyrus as far as that river is navigable; after which it was conducted by a land carriage of five days to the river Phasis, then down that stream into the Euxine, and thence to Constantinople. The passage of goods from Hindostan was less tedious; they being carried either directly to the Caspian or to the river Oxus, but by a passage much shorter than that from China; after which they were conveyed down the Phasis to the Euxine, and thus to Constantinople. India.

28 Tedious passage of India goods to Europe.

It is evident that a commerce thus carried on must have been liable to a thousand disadvantages. The goods conveyed over such vast tracts of land could not be sold but at a very high price, even supposing the journey had been attended with no danger; but as the caravans were continually exposed to the assaults of barbarians, it is evident that the price must on that account have been greatly enhanced. In spite of every difficulty, however, even this commerce flourished, and Constantinople became a considerable mart for East Indian commodities; and from it all the rest of Europe was chiefly supplied with them for more than two centuries. The perpetual course of hostilities in which the Christians and Mohammedans were during this period engaged, contributed still to increase the difficulty; and it is remarkable, that the more this difficulty increased, the more desirous the Europeans seemed to be of possessing the luxuries of Asia.

About this time the cities of Amalphi and Venice, with some others in Italy, having acquired a greater degree of independence than they formerly possessed, began first to exert themselves in promoting domestic manufactures, and then to import the productions of India in much larger quantities than formerly. Some traces of this revival of a commercial spirit, according to Dr Robertson, may be observed from the end of the seventh century. The circumstances which led to this revival, however, are entirely unnoticed by historians; but during the seventh and eighth centuries, it is very probable that no commercial intercourse whatever took place betwixt Italy and Alexandria; for, prior to the period we speak of, all the public deeds of the Italian and other cities of Europe had been written upon paper made of the Egyptian papyrus, but after that upon parchment.

The mutual antipathy which the Christians and Mohammedans bore against each other, would no doubt for a long time retard the progress of commerce between them; but at last the caliphs, perceiving the advantage which such a traffic would be of to their subjects, were induced to allow it, while the eagerness with which the Christians coveted the Indian products and manufactures, prompted them to carry it on. But scarce was the traffic begun, when it seemed in danger of being totally interrupted by the crusades. Notwithstanding the enthusiastical zeal of these adventurers, however, there were many to whom commerce was a greater object than religion. This had always been the case with numbers of the pilgrims who visited the holy places at Jerusalem, even before the commencement of the crusades: but these, after they took place, instead of retarding the progress of this kind of commerce, proved the means of promoting it to a great degree. "Various circumstances (says Dr Robertson) concurred towards this. Great armies, conducted by the most illustrious nobles of Europe, and composed of men of the most enterprising spirit in all the kingdoms of it, marched towards Palestine, through countries far advanced beyond those which they left in every species of improvement. They beheld the dawn of prosperity in the republics of Italy, which had begun to vie with each other in the arts of industry, and in their efforts to engross the lucrative commerce with the

29 Effect of the crusades on the Indian commerce.

India. the east. They next admired the more advanced state of opulence and splendour in Constantinople, raised to a pre-eminence above all cities then known by its extensive trade, particularly that which it carried on with India and the countries beyond it. They afterwards served in those provinces of Asia through which the commodities of the east were usually conveyed, and became masters of several cities which had been staples of that trade. They established the kingdom of Jerusalem, which subsisted near 200 years. They took possession of the throne of the Greek empire, and governed it about half a century. Amidst such a variety of events and operations, the ideas of the fierce warriors of Europe gradually opened and improved; they became acquainted with the policy and arts of the people whom they subdued: they observed the sources of their wealth, and availed themselves of all this knowledge. Antioch and Tyre, when conquered by the crusaders, were flourishing cities, inhabited by opulent merchants, who supplied all the nations trading in the Mediterranean with the productions of the east; and, as far as can be gathered from incidental occurrences mentioned by the historians of the holy war, who being mostly priests and monks, had their attention directed to objects very different from those relating to commerce, there is reason to believe, that both in Constantinople while subject to the Franks, and in the ports of Syria acquired by the Christians, the long established trade with the east continued to be protected and encouraged."

Our author next goes on to show in what manner the commerce of the Italian states was promoted by the crusades, until at last, having entirely engrossed the East India trade, they strove with such eagerness to find new markets for their commodities, that they extended a taste for them to many parts of Europe where they had formerly been little known. The rivalship of the Italian states terminated at last in a treaty with the sultan of Egypt in 1425, by which the port of Alexandria and others in Egypt were opened to the Florentines as well as the Venetians; and soon after, that people began to obtain a share in the trade to India.

30 How the India trade was carried on in the 14th century.

The following account of the manner in which the India trade was carried on in the beginning of the 14th century, is given by Marino Sanudo a Venetian nobleman. The merchants of that republic were supplied with the commodities they wanted in two different ways. Those of small bulk and great value, such as cloves, nutmegs, gems, pearls, &c. were carried up the Persian gulf to Bassora, from thence to Bagdad, and afterwards to some port on the Mediterranean. The more bulky goods, such as pepper, cinnamon, and other spiceries, were brought in the usual manner to the Red sea, and from thence to Alexandria. The goods brought by land, however, were always liable to be seized by barbarians; and therefore the supply that way was scanty, and the price extravagantly dear, while, on the other hand, the sultan of Egypt, by imposing duties upon the East India cargoes to the amount of a full third of the value, seemed to render it impossible that the owners should find purchasers for their goods. This, however, was far from being the case; the demand for India goods continually increased; and thus a communication, formerly unknown, betwixt all the nations of Europe, was begun and kept up. All this time, however, there had been no direct communication betwixt Europe and India, as the Mohammedans would never allow any Christian to pass through their dominions into that country. The dreadful incursions and conquests of the Tartars under Jenghis-khan, however, had so broken the power of the Mohammedans in the northern parts of Asia, that a way was now opened to India through the dominions of these barbarians. About the middle of the 13th century, therefore, Marco Polo, a Venetian, by getting access to the khan of the Tartars, explored many parts of the east which had long been unknown even by name to the Europeans. He travelled through China from Peking on its northern frontier to some of its most southerly provinces. He visited also different parts of Hindostan, and first mentions Bengal and Guzerat by their modern names as great and flourishing kingdoms. He obtained also some account of an island which he called *Zipangri*, and was probably no other than Japan; he visited Java with several of the islands in its neighbourhood, the island of Ceylon, and the coast of Malabar as far as the gulf of Cambay; to all which he gave the names they have at this day. The discovery of such immense regions unknown before in Europe, furnished vast room for speculation and conjecture; and while the public attention was yet engaged by these discoveries, the destruction of Constantinople by the Turks gave a very considerable turn to the East India commerce, by throwing it almost entirely into the hands of the Venetians. Hitherto the Genoese had rivalled that state in the commerce we speak of, and they had possessed themselves of many important places on the coast of Greece, as well as of the port of Caffa on the Black sea. Nay, they had even established themselves at Constantinople, in the suburb of Pera, in such a manner as almost entirely to exclude the Greeks themselves from any share in this commerce; but by the destruction of Constantinople they were at once driven out of all these possessions, and so thoroughly humbled, that they could no longer contend with the Venetians as before; so that, during the latter part of the 15th century, that republic supplied the greater part of Europe with the productions of the east, and carried on trade to an extent far beyond what had been known in former times. The mode in which they now carried on this trade was somewhat different from what had been practised by ancient nations. The Tyrians, Greeks, and Romans, had sailed directly to India in quest of the commodities they wanted; and their example has been imitated by the navigators of modern Europe. In both periods the Indian commodities have been paid for in gold and silver; and great complaints have been made on account of the drain of those precious metals, which were thus buried as it were in India, never to return again. The Venetians, however, were exempted from this loss; for having no direct intercourse with India, they supplied themselves from the warehouses they found, in Egypt and Syria, ready filled with the precious commodities they wanted; and these they purchased more frequently by barter than with ready money. Thus, not only the republic of Venice, but all the cities which had the good fortune to become emporia for the India goods imported by it, were raised to such a pitch of

India.

31 Journey of Marco Polo into the east.

32 Genoese trade to India ruined by the taking of Constantinople.

33 Immense wealth of the Venetians arising from their Indian commerce.

power and splendour as scarce ever belonged to any European state. The citizens of Bruges, from which place the other European nations were for a long time supplied with these goods, displayed such magnificence in their dress, buildings, and manner of living, as excited even the envy of their queen Joan of Navarre who came to pay them a visit. On the removal of the staple from Bruges to Antwerp, the latter soon displayed the same opulence; and in some cities of Germany, particularly Augsburg, the great mart for Indian commodities in the internal parts of that country, there are examples of merchants acquiring such large fortunes as entitled them to high rank and consideration in the empire. The most accurate method, however, of attaining some knowledge of the profits the Venetians had on their trade, is by considering the rate of interest on money borrowed at that time. This, from the close of the 11th century to the commencement of the 16th, we are told, was no less than 20 per cent. and sometimes more. Even as late as 1500, it was 10 or 12 in every part of Europe. Hence we are to conclude that the profits of such money as was then applied in trade must have been extremely high; and the condition of the inhabitants of Venice at that time warrants us to make the conclusion. "In the magnificence of their houses (says Dr Robertson), in richness of furniture, in profusion of plate, and in every thing which contributed either towards elegance or parade in their mode of living, the nobles of Venice surpassed the state of the greatest monarch beyond the Alps. Nor was all this display the effect of an ostentatious and inconsiderate dissipation; it was the natural consequence of successful industry, which, having accumulated wealth with ease, is entitled to enjoy it in splendour."

34 High interest of money in the 15th century.

This excessive superiority of wealth displayed by the Venetians could not fail to excite the envy of the other states of Europe. They were at no loss to discover that the East India trade was the principal source from whence their wealth was derived. Some of them endeavoured to obtain a share by applying to the sultans of Egypt and Syria to gain admission into their ports upon the same terms with the Venetians; but either by the superior interest of the latter with those princes, or from the advantages they had of being long established in the trade, the Venetians always prevailed. So intent indeed were the other European powers on obtaining some share of this lucrative commerce, that application was made to the sovereign of Russia to open an intercourse by land with China, though the capitals of the two empires are upwards of 6000 miles distant from each other. This, however, was beyond the power of the Russian prince at that time; and the Venetians imagined that their power and wealth were fully established on the most permanent basis, when two events, altogether unforeseen and unexpected, gave it a mortal blow, from which it never has recovered, nor can recover itself. These were the discovery of America, and that of the passage to the East Indies by the Cape of Good Hope. The former put Spain in possession of immense treasures; which being gradually diffused all over Europe, soon called forth the industry of other nations, and made them exert themselves in such a manner as of itself must have soon lessened the demand for Indian productions.

35 The Venetian trade ruined by the discovery of the Cape of Good Hope.

The discovery of the passage to India by the Cape of Good Hope, however, was the most effectual and speedy in humbling the Venetians. After a tedious course of voyages along the western coast of Africa, continued for near half a century, Vasco de Gama, an active and enterprising Portuguese officer, doubled the Cape of Good Hope, and, coasting along the eastern shore of the continent, sailed next across the Indian ocean, and landed at Calicut on the coast of Malabar, on the 22d of May 1498, ten months and two days after leaving the port of Lisbon. On his arrival in India he was at first received with great kindness by the sovereign of that country, styled the *Samorin*; but afterwards, from what causes we cannot now well determine, the Indian prince suddenly changed his kindness into mortal enmity, and attempted to cut off Gama with his whole party. The Portuguese admiral, however, found means to escape every plot that was laid against him; and loaded his ships not only with the products of that part of the country, but with many of the valuable products of the more remote regions.

36 Exploits of the Portuguese in India.

On his return to Portugal, De Gama was received with all imaginable demonstrations of kindness. The Portuguese nation, nay all the nations in Europe, the Venetians alone excepted, rejoiced at the discovery which had been made. The latter beheld in it the certain and unavoidable downfal of their own power, while the Portuguese, presuming upon their right of prior discovery, which they took care to have confirmed by a papal grant, plumed themselves on the thoughts of having the whole Indian commerce centre in their nation. The expectations of the one, and the apprehensions of the other, seemed at first to be well-founded. A succession of gallant officers sent into the east from Portugal accomplished the greatest and most arduous undertakings. In 24 years after the voyage of De Gama, they had made themselves masters of many important places in India; and among the rest of the city of Malacca, where the great staple of trade throughout the whole East Indies was established. As this city stands nearly at an equal distance from the eastern and western extremities of all the countries comprehended under the name of *Indies*, it was frequented by the merchants of China, Japan, of all the kingdoms on the continent, the Moluccas and other islands in that quarter, as well as by those of Malabar, Ceylon, Coromandel, and Bengal. Thus the Portuguese acquired a most extensive influence over the internal commerce of India; while, by the settlements they had formed at Goa and Diu, they were enabled to engross the trade on the Malabar coast, and greatly to obstruct the long established intercourse of Egypt with India by the way of the Red sea. Their ships now frequented every port in the east where any valuable commodities were to be had, from the Cape of Good Hope to the river of Canton in China; and all along this immense extent of more than 4000 leagues, they had a chain of forts and factories established for the convenience of protecting their trade. They had likewise made themselves masters of several stations favourable to commerce along the southern coast of Africa, and in many islands lying between Madagascar and the Moluccas. In all places where they came, their arms had struck such terror, that they not only carried on their trade without any rival or controul, but even prescribed

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India. to the natives the terms of their mutual intercourse; nay, sometimes they set what price they pleased upon the commodities they purchased, and thus were enabled to import into Europe the Indian commodities in greater abundance and at a lower rate than had ever been done before. Not satisfied with this, they formed a scheme of excluding all other nations from any share of the trade they enjoyed; and for that purpose determined to make themselves masters of such stations on the Red sea and Persian gulf as might put them in possession of the navigation of both these seas, and enable them not only to obstruct the ancient commerce between Egypt and India, but to command the mouths of the great rivers which we have formerly mentioned as the means of conveying the Indian goods through the internal parts of Asia. The conduct of these enterprises was committed to Alphonso Albuquerque, the most distinguished officer at that time in the Portuguese service. By reason of the vast number of the enemies he had to contend with, however, and the scanty supplies which could be derived from Portugal, he could not fully accomplish what was expected from him. However, he took from the petty princes who were tributaries to the kings of Persia the small island of Ormus, which commanded the mouth of the Persian gulf; and thus secured to Portugal the possession of that extensive trade with the east which the Persians had carried on for several centuries. On this barren island, almost entirely covered with salt, and so hot that the climate can scarcely be borne, destitute of a drop of fresh water, except what was brought from the continent, a city was erected by the Portuguese, which soon became one of the chief seats of opulence, splendour, and luxury, in the eastern world. In the Red sea the Arabian princes made a much more formidable resistance; and this, together with the damage his fleet sustained in that sea, the navigation of which is always difficult and dangerous, obliged Albuquerque to retire without effecting any thing of importance. Thus the ancient channel of conveyance still remained open to the Egyptians; but their commerce was greatly circumscribed and obstructed by the powerful interest of the Portuguese in every port to which they had been accustomed to resort.

37 Ineffectual struggles of the Venetians to retrieve their affairs.

The Venetians now began to feel those effects of De Gama's discovery which they had dreaded from the beginning. To preserve the remains of their commerce, they applied to the sultan of the Mameluks in Egypt, who was no less alarmed than themselves at the loss of such a capital branch of his revenue as he had been accustomed to derive from the India trade. By them this fierce and barbarous prince was easily persuaded to send a furious manifesto to Pope Julius II. and Emmanuel king of Portugal. In this, after stating his exclusive right to the Indian trade, he informed them, that if the Portuguese did not relinquish that new course of navigation by which they had penetrated into the Indian ocean, and cease from encroaching on that commerce which from time immemorial had been carried on between the east of Asia and his dominions, he would put to death all the Christians in Egypt, Syria, and Palestine, and demolish the holy sepulchre itself. To this threat, which some centuries before would have alarmed all Christendom, no regard was paid; so that the Venetians, as their last resource, were obliged to have recourse to a different expedient. This was to excite the sultan to fit out a fleet in the Red sea to attack the Portuguese, and drive them from all their settlements in the east; nay, in order to assist him in the enterprise, he was allowed to cut down their forests in Dalmatia, to supply the deficiency of Egypt in timber for ship-building. The timber was conveyed from Dalmatia to Alexandria; and from thence, partly by water and partly by land, to Suez; where twelve men of war were built, on board which a body of Mameluks were ordered to serve under the command of an experienced officer. Thus the Portuguese were assaulted by a new enemy, far more formidable than any they had yet encountered; yet such was the valour and conduct of the admiral, that after several severe engagements, the fleet of the infidels was entirely ruined, and the Portuguese became absolute masters of the Indian ocean. India

This disaster was followed in no long time by the total overthrow of the dominion of the Mameluks in Egypt by Selim the Turkish sultan; who thus also became master of Syria and Palestine. As his interest was now the same with that of the Venetians, a league was quickly formed betwixt them for the ruin of the power of the Portuguese in India. With this view Selim confirmed to the Venetians the extensive commercial privileges they enjoyed under the government of the Mameluks; publishing at the same time an edict, by which he permitted the free entry of all the productions of the east imported directly from Alexandria into any part of his dominions, but imposed heavy taxes upon such as were imported from Lisbon. All this, however, was insufficient to counteract the great advantages which the Portuguese had obtained by the new passage to India, and the settlements they had established in that country; at the same time that the power of the Venetians being entirely broken by the league of Cambray, they were no longer able to contribute any assistance. They were therefore reduced to the necessity of making an offer to the king of Portugal to purchase all the spices imported into Lisbon, over and above what might be requisite for the consumption of his own subjects. This offer being rejected, the Portuguese for some time remained uncontrouled masters of the Indian trade, and all Europe was supplied by them, excepting some very inconsiderable quantity which was imported by the Venetians through the usual channels.

38 Why the Portuguese trade was not interrupted by other European powers.

The Portuguese continued to enjoy this valuable branch of commerce undisturbed almost for a whole century; for which, however, they were indebted more to the political situation of the different European nations than to their own prowess. After the accession of Charles V. to the throne of Spain, that kingdom was either so much engaged in a multiplicity of operations, owing to the ambition of that monarch and his son Philip II. or so intent on prosecuting their discoveries and conquests in the new world, that no effort was made to interfere with the East Indian trade of the Portuguese, even though an opportunity offered by the discovery of a second passage by sea to the East Indies through the straits of Magellan. By the acquisition of the crown of Portugal in 1580, Spain, instead of becoming the rival, became the protector and guardian of the Portuguese trade. The resources of France all

India.

this time were so much exhausted by a continuance of long and desolating wars, that it could bestow neither much attention on objects at such a distance, nor engage in any expensive scheme. England was desolated by the ruinous wars between the houses of York and Lancaster, and afterwards its enterprising spirit was restrained by the cautious and covetous Henry VII. His son Henry VIII. in the former part of his reign, by engaging in the continental quarrels of the European princes, and in the latter part by his quarrel with the pope and contests about religion, left no time for commercial schemes. It was not, therefore, till the reign of Queen Elizabeth that any attention was paid to the affairs of the east by that kingdom. The first who shook the power of the Portuguese in India were the Dutch; and in this they were gladly seconded by the natives, whom the Portuguese had most grievously oppressed. The English soon followed their example; and in a few years the Portuguese were expelled from their most valuable settlements, while the most lucrative branches of their trade have continued ever since in the hands of those two nations.

39 Rivalship of the French and English in the East Indies.

It is not to be supposed that the other European nations would sit still and quietly see these two engross the whole of this lucrative commerce without attempting to put in for a share. East India companies were therefore set up in different countries: but it was only between France and Britain that the great rivalship commenced; nor did this fully display itself till after the peace of Aix-la-Chapelle. Both

40 English settlements in India.

nations had by this time made themselves masters of considerable settlements in India. The principal of those belonging to Britain were, 1. Surat, situated on the western side of the peninsula within the Ganges, between the 21st and 22d degrees of N. Lat. This peninsula comprehended the kingdoms of Malabar, Decan, Golconda, and Bisnagar, with the principalities of Gingi, Tanjour, and Madura; the western coast being distinguished by the name of Malabar, and the eastern by that of Coromandel. 2. Bombay, a small island in the kingdom of Decan, about 45 leagues to the south of Surat. 3. Dabul, about 40 leagues farther to the south, in the province of Concan. 4. Carwar, in N. Lat. 15°, where there was a small fort and factory. 5. Tillicherry, to which place the English trade was removed from Calicut, a large town 15 leagues to the southward. 6. Anjengo, between eight and nine degrees of latitude, the most southerly settlement on the western coast of the peninsula. 7. On the Coromandel coast they possessed Fort St David's, formerly called Tegapatan, situated in the kingdom of Gingi, in 11° 40′ N. Lat. 8. Madras, the principal settlement on this coast, between 13° and 14° N. Lat. not far from the diamond mines of Golconda. 9. Visigapatam, farther to the north. 10. Balasore, in latitude 22°, a factory of small consequence. 11. Calcutta, the capital of all the British settlements in the East Indies. These were the principal places belonging to Britain which we shall have occasion to

41 Origin of the East Indian war betwixt the French and English in 1747.

mention in the account of the contests which now took place; those of the French were chiefly Pondicherry and Chandernagore.

The war is said to have been first occasioned by the intrigues of the French commandant M. Dupleix; who immediately after the peace of Aix-la-Chapelle, began to sow dissension among the nabobs, who had by this time usurped the sovereignty of the country. Nizam Almuluck, viceroy of Decan, and nabob of Arcot, had, as officer for the Mogul, nominated Anaverdy Khan to be governor of the Carnatic, in the year 1745. On the death of Nizam, his second son Nazir-zing was appointed to succeed him in his viceroyalty, and his nomination was confirmed by the Mogul. He was opposed by his cousin Muzapher-zing, who applied to Dupleix for assistance. By him he was supplied with a body of Europeans and some artillery; after which, being also joined by Chunda Saib, an active Indian prince, he took the field against Nazir-zing. The latter was supported by a body of British troops under Colonel Laurence; and the French, dreading the event of an engagement, retired in the night; so that their ally was obliged to throw himself on the clemency of Nazir-zing. His life was spared, though he himself was detained as a state prisoner; but the traitor, forgetting the kindness showed him on this occasion, entered into a conspiracy against the life of Nazir-zing, and murdered him in his camp; in which infamous transaction he was encouraged by Dupleix and Chunda Saib, who had retired to Pondicherry. Immense riches were found in the tents of Nazir-zing, great part of which fell to the share of Dupleix, whom Muzapher-zing now associated with himself in the government. By virtue of this association, the Frenchman assumed the state and formalities of an eastern prince; and he and his colleague Muzapher-zing appointed Chunda Saib nabob of Arcot. In 1749, Anaverdy Khan had been defeated and killed by Muzapher-zing and Chunda Saib, assisted by the French; after which his son Mohammed Ali Khan had put himself under the protection of the English at Madras, and was confirmed by Nazir-zing as his father's successor in the nabobship or government of Arcot. This government, therefore, was disputed betwixt Mohammed Ali Khan, appointed by the legal viceroy Nazir zing, and supported by the English company, and Chunda Saib nominated by the usurper Muzapher-zing, and protected by Dupleix, who commanded at Pondicherry. Muzapher-zing, however, did not long enjoy his ill-got authority; for in the year 1751, the nabobs who had been the means of raising him to the power he enjoyed, thinking themselves ill rewarded for their services, fell upon him suddenly, defeated his forces, and put him to death; proclaiming Salabat-zing next day viceroy of the Deccan. On the other hand, the Mogul appointed Gauzedy Khan, the elder brother of Salabat-zing, who was confirmed by Mohammed Ali Khan in the government of Arcot; but the affairs of the Mogul were at that time in such disorder, that he could not with an army support the nomination he had made. Chunda Saib in the mean time determined to recover by force the nabobship of Arcot, from which he had been deposed by the Mogul, who had placed Anaverdy Khan in his room. With this view he had recourse to Dupleix at Pondicherry, who reinforced him with 2000 Sepoys, 60 Caffrees, and 420 French; upon condition that if he succeeded, he should cede to the French the town of Velur in the neighbourhood of Pondicherry, with its dependencies, consisting of 45 villages. Thus reinforced, he defeated Anaverdy Khan, who lost his life in the engagement, reassumed the government of Arcot,

India. cot, and punctually performed the engagements he had come under to his French allies.

All this time Mohammed Ali Khan had been supported by the English, to whom he fled after his father's death. By them he was supplied with a reinforcement of men, money, and ammunition, under the conduct of Major Laurence, a brave and experienced officer. By means of this supply he gained some advantages over the enemy; and repairing afterwards to Fort St David's, he obtained a further reinforcement. With all this assistance, however, he accomplished nothing of any moment; and the English auxiliaries having retired, he was defeated by his enemies. Thus he was obliged to enter into a more close alliance with the English, and cede to them some commercial points which had been long in dispute; after which, Captain Cope was dispatched to put Trinchinopoli in a state of defence, while Captain de Gingis, a Swiss officer, marched at the head of 400 Europeans to the assistance of the nabob. On this occasion Mr Clive first offered his service in a military capacity. He had been employed before as a writer, but appeared very little qualified for that or any other department in civil life. He now marched towards Arcot at the head of 210 Europeans and 500 Sepoys. In the first expedition he displayed at once the qualities of a great commander. His movements were conducted with such secrecy and despatch, that he made himself master of the enemy's capital before they knew of his march; and gained the affections of the people by his generosity, in affording protection without ransom. In a short time, however, he found himself invested in Fort St David's by Rajah Saib, son to Chunda Saib, an Indian chief, pretender to the nabobship of Arcot, at the head of a numerous army; the operations of the siege being conducted by European engineers. Thus, in spite of his utmost efforts, two practicable breaches were made, and a general assault given; but Mr Clive having got intelligence of the intended attack, defended himself with such vigour, that the assailants were everywhere repulsed with loss, and obliged to raise the siege with the greatest precipitation. Not contented with this advantage, Mr Clive, being reinforced by a detachment from Trinchinopoli, marched in quest of the enemy; and having overtaken them in the plains of Arani, attacked and entirely defeated them on the 3d of December 1751.

42 Mr Clive's first appearance in a military capacity.

43 His bravery and success.

This victory was followed by the surrender of the forts of Timery, Conjaveram, and Arani: after which Mr Clive returned in triumph to Fort St David's. In the beginning of the year 1752 he marched towards Madras, where he was reinforced by a small body of troops from Bengal. Though the whole did not exceed 300 Europeans, with as many natives as were sufficient to give the appearance of an army, he boldly proceeded to a place called *Koveripauk*, about 15 miles from Arcot, where the enemy lay to the number of 1500 Sepoys, 1700 horse, with 150 Europeans, and eight pieces of cannon. Victory was long doubtful, until Mr Clive having sent round a detachment to fall upon the rear of the enemy, while the English attacked the entrenchments in front with their bayonets, a general confusion ensued, the enemy were routed with considerable slaughter, and only saved from total destruction by the darkness of the night. The French to a man threw down their arms, and surrendered themselves prisoners of war; all the baggage and cannon falling at the same time into the hands of the victors. India.

44 His exploits under Major Laurence.

On the return of Mr Clive to Fort St David's, he was superseded in the command by Major Laurence. By him he was detached with 400 Europeans, a few Mahratta soldiers, and a body of Sepoys, to cut off the enemy's retreat to Pondicherry. In this enterprise he was attended with his usual good success, took several forts, vanquished the French commander M. d'Anteuil, and obliged him with all his party to surrender prisoners of war.

45 Death of Chunda Saib.

Chunda Saib, in the mean time, lay encamped with an army of 30,000 men at Syringham, an island in the neighbourhood of Trinchinopoli; but Major Laurence having found means to intercept his provisions, he was obliged to fly. Being obliged to pass through the camp of the Tanjore general, he obtained a pass for the purpose; but was nevertheless detained by the nabob; who was an ally of the English, and his head was struck off, in order to prevent any disputes that might arise concerning him.

After the flight of Chunda Saib, his army was attacked and routed by Major Laurence; and the island of Syringham surrendered, with about 1000 French soldiers under the command of Mr Law, brother to him who schemed the Mississippi company. M. Dupleix, exceedingly mortified at this bad success, proclaimed Rajah Saib, son to Chunda Saib, nabob of Arcot; and afterwards produced forged commissions from the Great Mogul, appointing him governor of all the Carnatic from the river Kristnah to the sea. The better to carry on this deception, a messenger pretended to come from Delhi, and was received with all the pomp of an ambassador from the Great Mogul. Dupleix, mounted on an elephant, and preceded by music and dancing women, after the oriental fashion, received his commission from the hands of this impostor; after which he affected the state of an eastern prince, kept his *durbar* or court, appeared sitting cross-legged on a sopha, and received presents as sovereign of the country, from his own council as well as from the natives.

46 M. Dupleix pretends commissions from the Mogul, and affects the state of an Indian prince.

Thus the forces of the English and French East India companies were engaged in a course of hostilities at a time when no war existed between the two nations; and while they thus continued to make war on each other under the title of auxiliaries to the contending parties, Gauzedy Khan took possession of the dignity appointed him by the Mogul; but had not been in possession of it above 14 days when he was poisoned by his own sister. His son Seah Abadin Khan was appointed to succeed him by the Mogul; but the latter being unable to give him proper assistance, Salabat-zing remained without any rival, and made a present to the French commander of all the English possessions to the northward.

47 Reinforcements arrive from England and France.

Thus concluded the campaign of 1752. Next year both parties received considerable reinforcements; the English, by the arrival of Admiral Watson with a squadron of ships of war, having on board a regiment commanded by Colonel Aldercroon; and the French by M. Gadeheu, commissary and governor-general of all their settlements, on whose arrival M. Dupleix departed

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parted for Europe. The new governor made the most friendly proposals; and desired a cessation of arms until the disputes could be adjusted in Europe. These proposals being readily listened to on the part of the English, deputies were sent to Pondicherry, and a provisional treaty and truce were concluded, on condition that neither of the two companies should for the future interfere in any of the differences that might take place in the country. The other articles related to the places or settlements that should be retained or possessed by the respective companies, until fresh orders should arrive from the courts of London and Versailles; and till then it was stipulated, that neither of the two nations should be allowed to procure any new grant or cession, or to build forts in defence of any new establishment; nor should they proceed to any cession, retrocession, or evacuation, of what they then possessed; but every thing should remain on the same footing as formerly.

48 Provisional treaty betwixt the two nations concluded.

The treaty was published on the 11th of January 1755; at the end of which month Admiral Watson returned with his squadron from Bombay, and M. Gadeheu returned to France in the beginning of February, leaving M. Leyrit his successor at Pondicherry. M. Bussy, with the Soubahdar Salabat-zing, commanded in the north; and M. de Saussay was left to command the troops at Syringham. Matters, however, did not long continue in a state of tranquillity. Early in the year it appeared that the French were endeavouring to get possession of all the provinces of the Deccan. M. Bussy demanded the fortress of Golconda from Salabat-zing; and M. Leyrit encouraged the phousder or governor who rented Velur to take up arms against the nabob. He even sent 300 French and as many Sepoys from Pondicherry to support this rebel, and oppose the English employed by the nabob to collect his revenues from the tributary princes. In this office they had been employed ever since the cessation of hostilities; one half of the revenue being paid to the nabob, and the other to the company, which now involved them in a kind of military expedition into the country of the Polygars, who had been previously summoned to send agents to settle accounts with the nabob. Four of them obeyed the summons; but one *Lachenaig* refused, and it was therefore resolved to attack him. The country was very strong, being almost entirely fortified by nature or art; for it was surrounded by craggy hills detached from one another, and covered with bushes so as to be impassable for any but the natives, who had thrown up works from hill to hill. These works were indeed very rude, being formed of large stones laid upon one another without any cement, and flanked at proper distances by round earthen towers; before the wall was a deep and broad ditch, with a large hedge of bamboos in front, so thick that it could not be penetrated but by the hatchet or by the fire. This was forced, though not without some loss; after which another work of the same kind, but stronger, made its appearance; but this being likewise forced, Lachenaig was obliged to submit and pay his tribute.

49 Expedition of the English into the country of the Polygars.

50 Madura reduced.

The English army now marched to Madura, a strong Indian town about 60 miles south of Trinchinopoli. On their approach it submitted without any opposition, and the inhabitants seemed pleased with their change of government. Here a deputation was received from a neighbouring Polygar, desiring an alliance, and as a proof of his sincerity making an offer of two settlements on the sea-coast of his country opposite to the island of Ceylon, which would greatly facilitate their future commerce with Tinevelly. Before this time they could not have reached that city but by a circuitous march of 400 or 500 miles; but from the new settlements the distance to Tinevelly was no more than 50 miles, and reinforcements or supplies of any kind might be sent them from Madras or Fort St David in four or five days. The offer being accepted, Colonel Heron, the English commander, marched to attack the governor of Madura, who had fled to a place called *Coilgoody*: on the approach of the English he fled from this place also, leaving the greatest part of his troops to defend the place. The road was so rugged, that the carriages of the cannon broke down; and as the troops were not furnished with scaling ladders, there seemed to be little hope of gaining the place, which was very strong. The colonel, however, determined to make an assault after the Indian manner, by burning down the gates with bundles of straw; and to encourage his men in this new method of attack, he himself carried the first torch, being followed by Mohammed Issouf, who bore the second. The place was taken and plundered, not sparing even the temples; which inspired the inhabitants with the utmost abhorrence of the victors, on account of their contempt of their religion.

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51 Two new settlements obtained by the English.

52 Exploits of Colonel Heron.

53 His imprudence in plundering the Indian temples.

After this exploit the army removed to Madura; and a garrison being left in the place, they proceeded to Tinevelly, which submitted without opposition, and owned the jurisdiction of the nabob; though some of the Polygars still evaded payment, and therefore hostilities were commenced against them.

The new expedition was marked by an act of the most disgraceful cruelty at a fort named *Nellecotah*, 40 miles south of Tinevelly. It was fortified by a mud wall with round towers. The assault was made with great resolution, and the troops gained possession of the parapet without being repulsed. On this the garrison called out for quarter, but it was barbarously refused; a general massacre of men, women, and children ensued, only six persons out of 400 being suffered to escape with life.

54 Cruel massacre at Nellecotah.

It now appeared that the revenues collected in this expedition had not been sufficient to defray the expences of the army; and a report being spread that Salabat-zing was advancing into the Carnatic at the head of his army, along with M. Bussy the French commander, to demand the Mogul's tribute, it was thought proper to recal Colonel Heron to Trinchinopoli. Before this, he had been prevailed on by the Indian chief who accompanied him, to convey to him (Mazuphe Cawn) an investiture of the countries of Madura and Tinevelly for an annual rent of 187,500l. sterling. In his way he was likewise induced by the same chief to make an attempt on a strong fort named *Nellytangaville*, situated about 30 miles west of Tinevelly; and belonging to a refractory Polygar. This attempt, however, proving unsuccessful for want of battering cannon, the colonel returned with Mazuphe Cawn to Trinchinopoli, where he arrived on the 22d of May 1755.

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55 Unfortunate expedition and disgrace of Colonel Heron.

The last expedition of this commander was against a mud fort named *Volsynatam*, situated near the entrance of the woods belonging to the Colleries. These people were highly incensed at the plundering of Coilgoody, and particularly at the loss of their sacred images, which the rapacious conquerors had carried off. In consequence of this they had already slaughtered a party of Sepoys whom the commanding officer at Madura had sent out to collect cattle. In their march the English army had to go through the pass of Natam, one of the most dangerous in the peninsula. It begins about 20 miles north of Trinchinopoli, and continues for six miles through a wood impassable to Europeans. The road which lay through it was barely sufficient to admit a single carriage at a time, at the same time that a bank running along each side rendered it impossible to widen it. In most places the wood was quite contiguous to the road; and even where part of it had been felled, the eye could not penetrate above 20 yards.—A detachment of Europeans, pioneers, and sepoys, were sent to scour the woods before the main body ventured to pass through such a dangerous defile. The former met with no opposition, nor did any enemy appear against the latter for a long time. At last the march was stopped by one of the heaviest tumbrils sticking in a slough, out of which the oxen were not able to draw it. The officers of artillery suffered the troops marching before to proceed; and the officer who commanded in the rear of the battalion, not suspecting what had happened, continued his march, while most of the Sepoys who marched behind the rear division of the artillery were likewise suffered to pass the carriage in the slough, which choaked up the road, and prevented the other tumbrils from moving forward, as well as three field pieces that formed the rear division of artillery, and the whole line of baggage that followed. In this divided and defenceless state the rear division of the baggage was attacked by the Indians; and the whole would certainly have been destroyed, had it not been for the courage and activity of Capt. Smith, who here commanded 40 Caffres and 200 Sepoys, with one six-pounder. Considerable damage, however, was done, and the Indians recovered their *gods*; which certainly were not worth the carrying off, being only made of brass, and of a diminutive size. Colonel Heron was tried by a court-martial for misconduct in this expedition; and being found guilty, was declared incapable of serving the company any longer; soon after which he returned to Europe, and died in Holland.

56 Scheme formed by the English against the French.

In the mean time Nanderauze, an Indian prince, formed a scheme to get possession of Trinchinopoli; and in order to compass his end with greater facility, communicated his design to M. de Saussay the commander of the French troops. But this gentleman having communicated intelligence to the English commander, the enterprise miscarried, and no difference betwixt these two rival nations as yet took place. It does not, however, appear that the English were in the least more solicitous to avoid hostilities than the French; for as soon as the company were informed of the acquisitions made by M. Bussy in the Deccan, it was determined to encourage the Mahrattas to attack Salabat-zing, in order to oblige him to dismiss the French auxiliaries from his service. In order to succeed in this enterprise, it was necessary to have a commander well experienced in the political systems of the country, as well as in military affairs; and for this purpose Mr Clive, now governor of Fort St David's, and invested with a lieutenant colonel's commission in the king's troops, offered his service. Three companies of the king's artillery, consisting of 100 men each, and 300 recruits, were sent from England on this expedition, who arrived at Bombay on the 27th of November; when on a sudden the presidency of Madras took it into consideration that this expedition could not be prosecuted without infringing the convention made with the French commander. "This (says Mr Grose) was acting with too much caution; for every thing relating to Salabat-zing and the French troops in his service seemed to have been studiously avoided. The court of directors had explained their whole plan to the presidency of Madras; but the ship which had the letters on board was unfortunately wrecked on a rock about 800 miles east of the Cape of Good Hope." The whole expedition was therefore laid aside, and the presidency of Madras directed all their force for the present against Tulagee Angria, who had long been a formidable enemy to the English commerce in those parts.

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57 The expedition laid aside.

58 Account of the pirate Tulagee Angria.

The dominions of this pirate consisted of several islands near Bombay, and an extent of land on the continent about 180 miles in length, and from 30 to 60 in breadth. He possessed also several forts that had been taken from the Europeans by his ancestors; the trade of piracy having, it seems, been hereditary in the family, and indeed followed by most of the inhabitants of this coast. This was the more dangerous for trading vessels, as the land breezes do not here extend more than 40 miles out at sea, so that the ships are obliged to keep within sight of land; and there was not a creek, harbour, bay, or mouth of a river, along the whole coast of his dominions, where Angria had not erected fortifications, both as stations of discovery and places of refuge to his vessels. His fleet consisted of two kinds of vessels peculiar to this country, named *grabs* and *gallivats*. The former have generally two masts, though some have three; the latter being about 300 tons burthen, and the former 150. They are built to draw little water, being very broad in proportion to their height; but narrowing from the middle to the end, where, instead of bows, they have a prow projecting like a Mediterranean galley, and covered with a strong deck level with the main deck of the vessel, from which it is separated by a bulk-head that terminates the forecastle. As this construction subjects the grab to pitch violently when sailing against a head sea, the deck of the prow is not inclosed with sides as the rest of the vessel, but remains bare, that the water which comes upon it may pass off without interruption. Two pieces of cannon are mounted on the main deck under the forecastle, carrying balls of nine or twelve pounds, which point forwards through port-holes cut in the bulk-head, and fire over the prow; those of the broad-side are from six to nine pounders. The gallivats are large row-boats built like the grab, but smaller, the largest scarce exceeding 70 tons burden. They have two masts, the mizen slightly made, and the main-mast bearing one large and triangular sail. In general they are covered with a spar deck made of split

59 Description of his fleet.

split bamboos, and carry only paterreroes fixed on swivels in the gunnel of the vessel; but those of a larger size have a fixed deck, on which they mount six or eight pieces of cannon from two to four pounders. They have 40 or 50 stout oars, by which they may be moved at the rate of four miles an hour.

Angria had commonly a fleet of eight or ten grabs, with 40 or 50 gallivats; which slipped their cables and put out to sea as soon as any vessel had the misfortune to come within sight of the port or bay where they lay. If the wind blew with any strength, their construction enabled them to swim very swiftly: but if it was calm, the gallivats rowed, and towed the grabs.

60 Their manner of attacking ships. As soon as they came within gunshot of the enemy, they assembled astern, and the grabs began the attack, firing at first only at the masts, and choosing the most advantageous positions for this purpose. If the vessel happened to be dismasted, they then drew nearer, and battered her on all sides till she struck; but if the defence was obstinate, they sent a number of gallivats with 200 or 300 soldiers in each, who boarded from all quarters sword in hand.

61 Unsuccessful attempts to reduce this pirate. This piratical state had for more than 50 years been formidable to all the nations in Europe; the English East India company had kept up a naval force for the protection of their trade at the rate of more than 50,000l. annually, and after all found it scarcely adequate to the purpose. An unsuccessful attempt had been made in 1717, by the presidency of Bombay, against the forts Geriah and Kennary, the principal strong holds of Angria.—Another was made in 1722, under Admiral Matthews, against a fort named Coilabley, about 15 leagues south of Bombay: but this also miscarried through the cowardice and treachery of the Portuguese, who pretended to assist the English. In 1735 Fort Geriah was unsuccessfully attacked by a Dutch armament of seven ships, two bomb-ketches, and a numerous body of land forces; while all this time the piracies of Angria went on successfully, and not only trading vessels, but even men of war belonging to different nations, were captured by him, particularly in the month of February 1754. when three Dutch ships of 50, 36, and 18 guns, were burnt or taken by the piratical fleet.

This last success encouraged Angria so much, that he began to build vessels of a large size, boasting that he should be master of the Indian seas. The Mahrattas having implored the assistance of the English against this common enemy, Commodore William James was sent from Bombay on the 22d of March 1755, with the Protector of 44, the Swallow of 16 guns, and two bomb-ketches; but with instructions not to hazard the fleet by attacking any of the pirate's forts, only to blockade the barbours, while the Mahratta army carried on their operations by land. He had scarce begun his voyage when he fell in with a considerable fleet of the pirates, which he would certainly have taken, had it not been for the timidity and dilatory behaviour of his allies, who could not by any means be induced to follow him. They had, however, invested three of the forts, but after a very strange manner; for they durst not approach nearer than two miles, and even there entrenched themselves up to the chin, to be secure against the fire of the fort, which they returned only with one four pounder. The commodore, provoked at this pusillanimous behaviour, determined, for the honour of the British arms, to exceed the orders he had got. Running within 100 yards of a fort named Severndroog, he in a few hours ruined the walls, and set it on fire; a powder magazine also blowing up, the people, to the number of about 1000, abandoning the place, and embarking on board of eight large boats, attempted to make their escape to another fort named Goa, but were all intercepted and made prisoners by the English. The whole force of the attack being then turned upon Goa, a white flag was soon hung out as a signal to surrender. The governor, however, did not think proper to wait the event of a capitulation, but without delay passed over to Severndroog, where he hoped to be able to maintain his ground notwithstanding the ruinous state of the fortifications. The fire was now renewed against this fortress; and the seamen having cut a passage through one of the gates with their axes, the garrison soon surrendered, at the same time that two other forts besieged by the Mahrattas hung out flags of truce and capitulated: and thus were four of Angria's forts, for so many years deemed impregnable, subdued in one day.

62 Success of Commodore James against his forts.

63 The pirate finally subdued by Admiral Watson. These successes were followed by the surrender of Bancoote, a strong fortified island, now called *Fort Victoria*, and which the English retained in possession; but the other forts were delivered up to the Mahrattas. On the arrival of Admiral Watson in the beginning of November 1755, it was determined to root out the pirate at once, by attacking Geriah the capital of his dominions; but it was so long since any Englishman had seen this place, and the reports of its strength had been so much exaggerated, that it was thought proper to reconnoitre it before any attack was made. This was done by Commodore James; who having reported that the fort, though strong, was far from being inaccessible or impregnable, it was resolved to prosecute the enterprise with the utmost expedition and vigour. It was therefore attacked by such a formidable fleet, that Angria, losing courage at their approach, fled to the Mahrattas, leaving Geriah to be defended by his brother. The fort, however, was soon obliged to surrender, with no more loss on the part of the English than 19 men killed and wounded: but it was afterwards acknowledged, that this success was owing principally to the terror of the garrison, occasioned by such a violent cannonade; for their fortifications appeared to have been proof against the utmost efforts of an enemy. All the ramparts of this fort were either cut out of the solid rock, or built of stones at least ten feet long laid edgeways.

In this fortress were found 200 pieces of brass cannon with six brass mortars, and a great quantity of ammunition and military stores, besides money and effects to the value of 125,000l. Angria's fleet was entirely destroyed, one of the ships having been set on fire by a shell from the English fleet, and the flames having spread from thence to all the rest. About 2000 people were made prisoners; among whom were the wife, children, mother, brother, and admiral of the pirate: but they were treated with the greatest clemency; and his family, at their own request, continued under the protection of the English at Geriah. All the

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the other forts belonging to Angria soon submitted; so that his power on the coast of Malabar was entirely annihilated.

64 M. Bussy dismissed by Salabat-zing.

While the affairs of the English went on thus successfully, M. Bussy had been constantly employed near the person of Salabat-zing, whom he had served in much the same manner that the English had Mohammed Ali Cawn. As he made use of his influence with that prince, however, to enlarge the possessions of the French, and was continually making exorbitant demands upon him, the prime minister of Salabat-zing at length represented to him the danger and shame of allowing a small body of foreigners thus to give law to a great prince; and having formed a powerful combination against the French, at last obtained an order for their dismission. M. Bussy took his leave without any marks of disgust, having under his command about 600 Europeans, with 5000 Sepoys, and a fine train of artillery. His enemies, however, had no mind to allow him to depart in safety; and therefore sent orders to all the polygars to oppose their passage, sending 6000 Mahrattas after them to harass them on their march.

Notwithstanding this opposition, M. Bussy reached Hyderabad with very little loss. Here he took possession of a garden formerly belonging to the kings of Golconda, where he resolved to keep his post until succours should arrive from Pondicherry and Masulipatam. Here Salabat-zing proposed to attack him; and the better to attain his purpose, applied to the English presidency at Madras for a body of troops to assist him in this service. Nothing could be more agreeable to those who had the power at that place than such an invitation; and a detachment of 400 Europeans and 1500 Sepoys was on the point of being ordered to the assistance of Salabat-zing, when expresses from Bengal informed them of the greatest danger that had ever threatened the British settlements in Indostan.

65 A detachment of English troops ordered against M. Bussy, but countermanded.

66 Surajah Dowla, nabob of Bengal, an enemy to the English.

This danger arose from the displeasure of Surajah Dowla the new nabob of Bengal. His grandfather Aliverdy Khan having died in April or May 1756, Surajah succeeded to the nabobship of Bengal, Bahar, and Orixa. He was congratulated on his accession by Mr Drake the English president at Calcutta, who requested his favour and protection in behalf of his countrymen. This was readily promised, even to a greater degree than what had been shown by his grandfather; but in a short time his resentment was incurred by the imprisonment, as it is said, of Omichund, an eminent Gentoo merchant, who had lived several years under the protection of the English government at Calcutta. Of this, however, Surajah Dowla did not directly complain; but founded his pretence of war upon the conduct of the English in repairing the fortifications of Calcutta; which indeed was absolutely necessary on account of the great likelihood of a war with the French. On this account, however, the nabob signified his displeasure, and threatened an attack if the works were not instantly demolished. With this requisition the president and council pretended to comply; but nevertheless went on with their works, applying first to the French and then to the Dutch for assistance; but as neither of these nations thought proper to interfere, the English were obliged to stand alone in the quarrel.

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67 His expedition against Calcutta.

Surajah Dowla took the field on the 30th of May 1756, with an army of 40,000 foot, 30,000 horse, and 400 elephants; and on the 2d of June detached 20,000 men to invest the English fort at Cassumbazar, a large town situated on an island formed by the western branch of the Ganges. The fort was regularly built, with 60 cannon, and defended by 300 men, but principally Sepoys. The nabob pretending a desire to treat, Mr Watts the chief of the factory, was persuaded to put himself in his power; which he had no sooner done, than he was made a close prisoner, along with Mr Batson a surgeon who accompanied him. The two prisoners were treated with great indignity, and threatened with death; but two of the council who had been sent for by the tyrant's command were sent back again, with orders to persuade the people of the factory to surrender it at discretion. This proposal met with great opposition in the council; but was at last complied with, though very little to the advantage of the prisoners; for they were not only deprived of every thing they possessed, but stripped almost naked, and sent to Hooghly, where they were closely confined.

The nabob, encouraged by this success, marched directly to Calcutta, which he invested on the 15th. Though he now threatened to drive the English entirely out of his dominions, yet he proposed an accommodation with Mr Drake, provided he would pay him his duty upon the trade for 15 years, defray the expences of his army, and deliver up the Indian merchants who were in the fort. This being refused, a siege commenced, and the place was taken in three days, through the treachery of the Dutch guard who had the charge of a gate. The nabob promised on the word of a soldier, that no harm should be done the English; nevertheless they were shut up in a prison so strait, that out of 146 all perished in a single night for want of air but 22. It was not, however, supposed that any massacre at this time was intended; and it is probable that he only gave orders to confine the prisoners closely for the night, without taking into consideration whether the place they were confined in was large or small.

68 Calcutta taken, and a number of prisoners suffocated.

* See *Calcutta*.

The news of this disaster put an end to the expedition projected against M. Bussy; and Colonel Clive was instantly dispatched to Bengal with 400 Europeans and 1000 Sepoys, on board of the fleet commanded by Admiral Watson. They did not arrive till the 15th of December, at a village called *Fulta*, situated on a branch of the Ganges, where the inhabitants of Calcutta had taken refuge after their misfortune. Their first operations were against the forts Busbudgia, Tanna, Fort-William, and Calcutta, now in the hands of the enemy. All these were reduced almost as soon as they could approach them. An expedition was then proposed against Hooghly, a large town about 60 miles above Calcutta, and the place of rendezvous for all nations who traded to Bengal; its warehouses and shops being always filled with the richest merchandise of the country. This was likewise easily reduced; and the city was destroyed, with the granaries and storehouses of salt seated on each side the river; which

69 Expedition of Admiral Watson and Colonel Clive against the nabob.

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proved very detrimental to the nabob, as depriving him of the means of subsistence for his army.

Surajah Dowla, enraged at this success of the English, now seemed determined to crush them at once by a general engagement. From this, however, he was intimidated by a successful attack on his camp, which soon induced him to conclude a treaty. This took place on the 9th of February 1757, on the following conditions. 1. That the privileges and immunities granted to the English by the king (Mogul) should not be disputed. 2. That all goods with English orders should pass, by land or water, free of any tax, fee, or imposition. 3. All the Company's factories which had been seized by the nabob should be restored; and the goods, money, and effects, which had been plundered, should be accounted for. 4. That the English should have permission to fortify Calcutta as they thought proper. 5. They should also have the liberty to coin their own imports of bullion and gold.

70 Treaty concluded with him.

71 War with the French.

As certain intelligence was now received of a war between France and England, the first object that naturally occurred, after the conclusion of this treaty, was the reduction of the French power in the east; in consequence of which it was represented to Admiral Watson, by a committee of the council of Bengal, that this was the only opportunity he perhaps might ever have of acting offensively against them. An attack would therefore immediately have been made on Chandernagore, had not a deputation arrived from that place, requesting a neutrality in this part of the world until matters should be finally decided in Europe. The negociation, however, was broken off on a suggestion that the government of Chandernagore, being subordinate to that of Pondicherry, could not render any transaction of this kind valid. It remained, therefore, only to obtain the consent of the nabob to make an attack upon this place: but this seemed not likely to be got; for in ten days after the conclusion of the treaty, he sent a letter to the admiral, complaining of his intention. "It appears (says he) that you have a design to besiege the French factory near Hooghly, and to commence hostilities against that nation. This is contrary to all rule and custom, that you should bring your animosities and differences into my country; for it has never been known, since the days of Timur, that the Europeans made war upon one another in the king's dominions. If you are determined to besiege the French factories, I shall be necessitated, in honour and duty to my king, to assist them with my troops. You are certainly bound to abide by your part of the treaty strictly, and never to attempt or be the occasion of any troubles or disturbances in future within the provinces under my jurisdiction, &c." To this Admiral Watson replied, that "he was ready to desist from his intended enterprize if the French would agree to a solid treaty of neutrality; or if the nabob, as *soubahdar* (viceroy) of Bengal, would, under his hand, guarantee this treaty, and promise to protect the English from any attempts made by the French against their settlements in his absence." This letter did not prove satisfactory; the nabob having been informed by the French agent, that the English designed to turn their arms against him as soon as they had made themselves masters of Chandernagore. This was strenuously denied by the admiral; and a number of letters passed between him and the nabob, in one of which the latter made use of the following expressions, which were supposed to imply a tacit consent that Chandernagore should be attacked. "My forbidding war on my borders was because the French were my tenants, and upon this affair desired my protection: on this I wrote to you to make peace, and no intention had I of favouring or assisting them. You have understanding and generosity: if your enemy with an upright heart claims your protection, you will give him his life; but then you must be *well* satisfied of the innocence of his intentions; if not, then whatsoever you think right, that do."

72 The nabob complains of the English.

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Having thus, as was supposed, obtained the consent of the nabob, an attack was made on Chandernagore, which was soon reduced to the necessity of capitulating; though the French made a gallant defence, and, as Mr Ives informs us, "stood to their guns as long as they had any to fire." A messenger was dispatched with the news to Surajah Dowla three days after the place had surrendered, intimating also that the French had been pursued some way up the country. This intelligence, however, seemed to be by no means agreeable, as he could scarce be induced to return an answer. At last he pretended displeasure on account of the design of the English to infringe the treaties, and complained that they had ravaged some parts of his dominions. This was denied on the part of the admiral; who in his turn accused the nabob of breach of promise, and neglect in fulfilling his engagements. The last letter sent by Admiral Watson to the nabob, of date 19th April 1757, concludes in this manner. "Let me again repeat to you, that I have no other views than that of peace. The gathering together of riches is what I despise; and I call on God, who sees and knows the spring of all our actions, and to whom you and I must one day answer, to witness to the truth of what I now write: therefore, if you would have me believe that you wish for peace as much as I do, no longer let it be the subject of our correspondence for me to ask the fulfilment of our treaty, and you to promise and not perform it; but immediately fulfil all your engagements: thus let peace flourish and spread throughout all your country, and make your people happy in the re-establishment of their trade, which has suffered by a ruinous and destructive war." From this time both parties made preparations for war. The nabob returned no answer till the 13th of June, when he sent the following declaration of war. "According to my promises, and the agreement made between us, I have duly rendered every thing to Mr Watts, except a very small remainder: Notwithstanding this, Mr Watts, and the rest of the council of the factory at Cassembuzar, under the pretence of going to take the air in their gardens, fled away in the night. This is an evident mark of deceit, and of an intention to break the treaty. I am convinced it could not have happened without your knowledge, nor without your advice. I all along expected something of this kind, and for that reason I would not recal my forces from Plassey, expecting some treachery. I praise God, that the breach of the treaty has not been on my part," &c.

73 Chandernagore taken by the English.

Nothing less was now resolved on in the English council at Calcutta than the deposition of the nabob; which

74 The deposition of the nabob resolved on.

which at this time appeared practicable, by supporting the pretensions of Meer Jaffier Ali Cawn, who had with other noblemen entered into a conspiracy against him. Meer Jaffier had married the sister of Aliverdy Cawn, the predecessor of Surajah Dowla; and was now supported in his pretensions by the general of the horse, and by Jugget Sect the nabob's banker, who was reckoned the richest merchant in all India. By these three leading men the design was communicated to Mr Watts the English resident at the nabob's court, and by him to Colonel Clive and the secret committee at Calcutta. The management of the affair being left to Mr Watts and Mr Clive, it was thought proper to communicate the secret to Omichund, through whom the necessary correspondence might be carried on with Meer Jaffier. This agent proved so avaricious, that it was resolved to serve him in his own way; and by a piece of treachery to him also, to gain their point with both parties. Two treaties were therefore written out; in one of which it was promised to comply with Omichund's demand, but in the other his name was not even mentioned; and both these treaties were signed by all the principal persons concerned, Admiral Watson alone excepted, whom no political motives could influence to sign an agreement which he did not mean to keep. These treaties, the same in every respect excepting as to Omichund's affair, were to the following purpose: 1. All the effects and factories belonging to the provinces of Bengal, Bahar, and Orixa, shall remain in possession of the English, nor should any more French ever be allowed to settle in these provinces. 2. In consideration of the losses sustained by the English company by the capture and plunder of Calcutta, he agreed to pay one crore of rupees, or 1,250,000l. sterling. 3. For the effects plundered from the English at Calcutta, he engaged to pay 50 lacks of rupees, or 625,000l. 4. For the effects plundered from the Gentoos, Moors, and others inhabitants of Calcutta, 20 lacks, or 250,000l. 5. For the effects plundered from the Armenian merchants, inhabitants of Calcutta, seven lacks, or 87,500l. 6. The distribution of all these sums to be left to Admiral Watson, Colonel Clive, Roger Drake, William Watts, James Kilpatrick, and Richard Becher, Esquires, to be disposed of by them to whom they think proper.

75 Avaricious and treacherous behaviour of Omichund and the English.

76 Treaty concluded with Meer Jaffier.

All things being now in readiness, Colonel Clive began his march against Surajah Dowla on the 13th of June, the very day on which Surajah Dowla sent off his last letter for Admiral Watson. Before any act of hostility was committed, however, Colonel Clive wrote the nabob a letter, upbraiding him with his conduct, and telling him at last, that "the rains being so near, and it requiring many days to receive an answer, he had found it necessary to wait upon him immediately." This was followed by the decisive action at Plassey; in which the treachery of Meer Jaffier, who commanded part of the nabob's troops, and stood neuter during the engagement, undoubtedly rendered the victory more easily acquired than it would otherwise have been. The unfortunate nabob fled to his capital with a few that continued faithful to him. He reached the city in a few hours; but not thinking himself safe there, left it the following evening, disguised like a faquir, with only two attendants. By these he appears to have been abandoned and even robbed; for on the 3d of July he was found wandering forsaken and almost naked on the road to Patna. Next day he was brought back to Muxadabad; and a few hours after privately beheaded by Meer Jaffier's eldest son, to whose care he had been committed. The usurper took possession of the capital in triumph; and on the 29th of June Colonel Clive went to the palace, and in presence of the rajahs and grandees of the court solemnly handed him to the musnud or carpet and throne of state, where he was unanimously saluted soubahdar or nabob, and received the submission of all present.

77 Surajah Dowla deposed and put to death.

78 Meer Jaffier proclaimed nabob of Bengal.

While these transactions were going forward with the nabob, the utmost efforts were used to expel the French entirely from Bengal. By the articles of capitulation at Chandernagore, the whole of that garrison were to continue prisoners of war; but about the time of signing the treaty, Mr Law with a small body of troops made his escape out of Cassembuzar, and bent his march towards Patna. There he had been protected by the late nabob; and on the commencement of fresh hostilities, had collected about 200 French, the only remains of that nation in Bengal, to make an attempt to succour him. With these he was within two hours march of Surajah Dowla's camp when the battle of Plassey was fought; on hearing the news of which he stopped: but afterwards being informed of the nabob's escape, he marched again to his assistance, and was within a few hours of joining him when he was taken. Three days after he was pursued by Major Eyre Coote at the head of 233 Europeans, three companies of Sepoys, 50 Lascars or Indian sailors, and 10 Marmutty men or pioneers to clear the roads, together with two pieces of cannon, six pounders. On this expedition the major exerted his utmost diligence to overtake his antagonist, and spent a very considerable space of time in the pursuit; for though he set out on the 6th of July, he did not return to Muxadabad till the 1st of September. Mr Law, however, had the good fortune to escape; but though the major did not succeed in what was proposed as the principal end of his expedition, he was, nevertheless, says Mr Ives, of considerable service to the company and to his country in general. He had obliged Ramnarain, the most powerful rajah in the country, to swear allegiance to Meer Jaffier; he laid open the interior state of the northern provinces; and, in conjunction with Mr Johnstone, gave the company some insight into the saltpetre business, from which such advantages have since been derived to the public.

79 Colonel Coote's expedition in quest of Mr Law.

Before the return of Major Coote, Admiral Pocock had succeeded to the command of the fleet, in consequence of the decease of Admiral Watson, who died on the 16th of August. The joy of the British was considerably damped by the loss of this gentleman, who had gained a great and deserved reputation both in the military line and every other. News were also received, that the French had been very successful on the coast of Coromandel. Salabat-zing, as has already been observed, had applied to the English for assistance against the French; but as they were prevented from performing their agreement by the disaster at Calcutta, he found himself under a necessity of accommodating the differences with his former friends, and to admit them again into his service. M. Bussy was now reinforced by the troops under Mr Law; who

80 Death of Admiral Watson.

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had collected as many Europeans in his journey as made up 500 with those he had at first. With these he undertook to reduce the English factories of Ingeram, Bandermalanka, and Vizagapatnam. As none of the two former places were in any state of defence, the greatest part of the company's effects were put on shipboard on the first alarm; but as Vizagapatnam was garrisoned by 140 Europeans and 420 Sepoys, it was supposed that it would make some defence. If any was made, however, it appears to have been very trifling; and by the conquest of this the French became masters of all the coasts from Ganjam to Massulipatnam. In the southern provinces the like bad success attended the British cause. The rebel Polygars having united their forces against Mazuphe Cawn, obtained a complete victory over him; after which the English Sepoys, being prevailed upon to quit Madura, the conqueror seized upon that city for himself.

81 Success of the French on the Coromandel coast.

In the beginning of 1758, the French made an attempt on Trinchinopoly. The command was given to M. d'Autreuil, who invested the place with 900 men in battalion, with 4000 Sepoys, 100 hussars, and a great body of Indian horse. Trinchinopoly was then in no condition to withstand such a formidable power, as most of the garrison had gone to besiege Madura under Captain Caillaud; but this commander having received intelligence of the danger, marched back with all his forces, and entered the town by a difficult road which the enemy had neglected to guard; and the French general, disconcerted by this successful manœuvre, drew off his forces, and returned to Pondicherry.

This fortunate transaction was succeeded by the siege of Madura, in which the English were so vigorously repulsed, that Captain Caillaud was obliged to turn the siege into a blockade in order to reduce the place by famine. But before any progress could be made in this way, Mazuphe Cawn was prevailed upon to give it up for the sum of 170,000 rupees. A large garrison of Sepoys was again put into the place, and Captain Caillaud returned to Trinchinopoly.

An unsuccessful attempt was now made by Colonel Ford on Nellore, a large town surrounded by a thick mud wall, with a dry ditch on all sides but one, where there is the bed of a river always dry but in the rainy season. The enterprise is said to have proved unsuccessful through the unheard-of cowardice of a body of Sepoys, who having sheltered themselves in a ditch, absolutely refused to stir a step farther, and rather chose to allow the rest of the army to march over them to the assault, than to expose themselves to danger. Several other enterprises of no great moment were undertaken; but the event was on the whole unfavourable to the English, whose force by the end of the campaign was reduced to 1718 men, while that of the French amounted to 3400 Europeans, of whom 1000 were sent to Pondicherry.

82 French defeated at sea by Admiral Pocock.

Both parties now received considerable reinforcements from Europe; Admiral Pocock being joined on the 14th of March by Commodore Stephens with a squadron of five men of war, and the French by nine men of war and two frigates, having on board General Lally with a large body of troops. The English admiral no sooner found himself in a condition to cope with the enemy than he went in quest of them; and an engagement took place, in which the French were defeated with the loss of 600 killed, and a great many wounded, while the English had only 29 killed and 89 wounded. The former returned to Pondicherry, where they landed their men, money, and troops. After the battle three of the British captains were tried for misbehaviour, and two of them dismissed from the command of their ships. As soon as his vessels were refitted, the admiral sailed again in quest of the enemy, but could not bring them to an action before the 3d of August, when the French were defeated a second time, with the loss of 251 killed, and 602 wounded.

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83 They are defeated a second time.

Notwithstanding this success at sea, the English were greatly deficient in land forces; the re-establishment of their affairs in Bengal having almost entirely drained the settlements on the coast of Coromandel of the troops necessary for their defence. The consequence of this was the loss of Fort St David, which General Lally reduced, destroying the fortifications, demolishing also the adjacent villages, and ravaging the country in such a manner as filled the natives with indignation, and in the end proved very prejudicial to his affairs. He proved successful, however, in the reduction of Devicottah, but was obliged to retreat with loss from before Tanjore, his army being greatly distressed for want of provisions; and money in particular being so deficient, that on the 7th of August the French seized and carried into Pondicherry a large Dutch ship from Batavia, bound to Negapatnam, and took out of her about 5000l. in specie.

84 Take Fort St David.

From this time the affairs of the French daily declined. On their retreat from Tanjore, they abandoned the island of Seringham; however, they took Tripassore, but were defeated in their designs on the important post of Chinglapet, situated about 45 miles south-west of Madras. Their next enterprises on Fort St George and Madras were equally unsuccessful. The latter was besieged from the 12th of December 1758 to the 17th of February 1759, when they were obliged to abandon it with great loss; which disaster greatly contributed to depress their spirits, and abate those sanguine hopes they had entertained of becoming masters in this part of the world.

The remainder of the year 1759 proved entirely favourable to the British arms. M. d'Ache the French admiral, who had been very roughly handled by Admiral Pocock on the 3d of August 1758, having refitted his fleet, and being reinforced by three men of war at the islands of Mauritius and Bourbon, now ventured once more to face his antagonist, who on his part did not at all decline the combat. A third battle ensued on the 10th of September 1759, when the French, notwithstanding their superiority, both in number of ships and weight of metal, were obliged to retreat with considerable loss; having 1500 men killed and wounded, while those on board the English fleet did not exceed 569. By the 17th of October the English fleet was completely refitted; and Admiral Pocock having been joined by a reinforcement of four men of war, soon after returned to England.

85 French defeated a third time by Admiral Pocock.

All this time the unfortunate General Lally had been employed in unsuccessful endeavours to retrieve the affairs of his countrymen: still, however, he attempted to act on the offensive; but his fate was at last decided by

by laying siege to Wandewash, which had lately been taken by Colonel Coote. The advantage in numbers was entirely in favour of the French general; the English army consisting only of 1700 Europeans, including artillery and cavalry, while the French amounted to 2200 Europeans. The auxiliaries on the English side were 3000 black troops, while those of the French amounted to 10,000 black troops and 300 Caffres; nor was the odds less in proportion in the artillery, the English bringing into the field only 14 pieces of cannon and one howitzer, while the French had 25 pieces in the field, and five on their batteries against the fort. The battle began about 11 o'clock on the 22d of January 1760, and in three hours the whole French army gave way and fled towards their camp; but quitted it on finding themselves pursued by the English, who took all their cannon except three small pieces. They collected themselves under the walls of Cheltaput, about 18 miles from the field of battle, and soon after retired to Pondicherry. Colonel Coote caused the country to be wasted to the very gates of this fortress, by way of retaliation for what the French had done in the neighbourhood of Madras. He then set about the siege of Cheltaput, which surrendered in one day; a considerable detachment of the enemy was intercepted by Captain Smith; the fort of Timmery was reduced by Major Monson, and the city of Arcot by Captain Wood. This last conquest enabled the English to restore the nabob to his dominions, of which he had been deprived by the French; and it greatly weakened both the French force and interest in India. M. Lally, in the mean time, had recalled his forces from Seringham, by which means he augmented his army with 500 Europeans. All these were now shut up in Pondicherry, which was become the last hope of the French in India. To complete their misfortunes, Admiral Cornish arrived at Madras with six men of war; and as the French had now no fleet in these parts, the admiral readily engaged to co-operate with the land forces. The consequence was the reduction of Carical, Chellambrum, and Verdachellum, by a strong detachment under Major Monson; while Colonel Coote reduced Permucoil, Alamperva, and Waldour. Thus he was at last enabled to lay siege to Pondicherry itself. Previous to this, however, it had been blockaded by sea and land, which reduced the place to great straits for want of provisions, and induced a mutinous disposition among the garrison. The batteries were not opened till the beginning of December 1760; and the place capitulated on the 15th of January 1761, by which an end was put to the power of the French in this part of the world.

86 General Lally defeated at Wandewash.

87 All the French forts in India, and Pondicherry their capital, taken.

While the English were thus employed in effectually reducing the power of their rivals in every part of India, Meer Jaffier, the nabob of Bengal, who had been raised to that dignity by the ruin of Surajah Dowla, found himself in a very disagreeable situation. The treasure of the late nabob had been valued at no less than 64 crore of rupees, about 80 millions sterling; and in expectation of such a vast sum, Meer Jaffier had no doubt thoughtlessly submitted to the enormons exactions of the English already mentioned. On his accession to the government, however, the treasure of which he became master fell so much short of expectation, that he could by no means fulfil his engagements to them and supply the expences of government at the same time. This soon reduced him to the necessity of mortgaging his revenues to supply present demands; and by this ruinous expedient he put it out of his own power ever to extricate himself. In this dilemma his grandees became factions and discontented, his army mutinous for want of pay, and he rendered himself odious to his subjects by the exactions he was necessitated to lay upon them. The English, who for their own interest had raised him to the supreme power, no sooner found that he was incapable of answering their purpose any longer, than they began to scheme against him; and in order to have some colour of reason for pulling down the man whom they had just set up, they either invented or gave ear to the most malicious calumnies against him. The charges brought against him were shortly these: 1. That soon after his advancement he had resolved to reduce that power which raised him to the dignity. 2. That, to effect this, he assassinated or banished every person of importance whom he suspected of being in the English interest. 3. That he negociated with the Dutch to introduce an armament for the expulsion of the English. 4. That he had in different instances been guilty of the deepest deceit and treachery towards the English, his best benefactors and allies. 5. That at three different periods the English commander in chief had been basely deserted both by the nabob and his son, when he and the troops were hazarding their lives for them. 6. That he meditated a secret and separate treaty with Shah-Zaddah, the Mogul's son, and had intended to betray the English to him. 7. That the whole term of his government had been one uninterrupted chain of cruelty, tyranny, and oppression. 8. That he meditated, and was near carrying into execution, an infamous secret treaty with the Mahrattas, which would have proved the total destruction of the country if it had taken place. 9. That he threw every possible obstruction in the way of the collection of the English *tunkas* or assignments upon lands. 10. That he encouraged the obstructions given to the free currency of the English siccas; by which the company suffered heavy losses. 11. That by his cruelties he had rendered it scandalous for the English to support his government any longer; and, 12. That by his misconduct, he had brought the affairs of the company as well as his own into the utmost danger of ruin.

88 Disagreeable situation of the nabob of Bengal.

89 Shameful behaviour of the English towards him.

In what manner these charges were supported it is difficult to know, nor perhaps were the accusers very solicitous about the strength of their evidence. This seems the more probable, as the accusations of cruelty were, in some instances at least, void of foundation. On the 13th of June 1760, Mr Howel wrote from Calcutta to Mr Warren Hastings, that by express he had received intelligence of the murder of the princesses of Aliverdy Khan and Shah Amet, in a most inhuman manner, by Meer Jaffier's orders. He was said to have sent a jemmatdaar with 100 horse to Jesseraut Khan to carry this bloody scheme into execution; with separate orders to the jemmatdaar to put an end to their lives. He refused acting any part in the tragedy, and left it to the other; who carried them out by night in a boat, tied weights to their legs, and threw them overboard. They struggled for some time, and held by the gunwale of the boat; but by strokes on their heads,

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India. and cutting off their hands, they were at last forced off and drowned. In like manner we were told that many others of Surajah Dowla's relations had perished; yet when it was thought proper to replace Meer Jaffier in 1761, all these dead persons were found *alive* excepting two. It must also be remembered, in behalf of the unfortunate nabob, that besides the sums exacted of him by the English at his accession, he had ceded to them a large extent of territory, and granted them so many immunities in trade, that he had in a manner deprived himself of all his resources; and it was impossible for him to defray the necessary expences without either extorting money from his subjects, or infringing the privileges he had so inconsiderately granted.

90 Different accounts of his deposition.

There were two accounts of this remarkable revolution published, materially differing from one another. The first was given in a memorial drawn up at a consultation at Fort William, November 10. 1760, where were present Henry Vansittart, Esq. president; William Ellis, B. Sumner, William M'Guire, Henry Verelst, and Henry Smyth, Esqs. "We resolved (says the governor) to give the nabob the next day (October 19. 1760) to reflect upon the letters I had delivered him, proposing some measures for regulating these abuses. I heard nothing from him all that day; but found by my intelligence that he had been in council at his old advisers, whose advice, I was sure, would be contrary to the welfare of the country and of the company. I therefore determined to act immediately on the nabob's fear. There could not be a better opportunity than the night of the 16th offered, it being the conclusion of the Gentoo feast, when all the principal people of that cast would be pretty well fatigued with their ceremonies. Accordingly I agreed with Colonel Caillaud, that he should cross the river with the detachment between three and four in the morning; and having joined Cossim Ali Khan and his people, march to the nabob's palace, and surround it just at daybreak. Being extremely desirous to prevent disturbance or bloodshed, I wrote a letter to the nabob, telling him, I had been waiting all the day in expectation that he would have settled the urgent affairs upon which I conferred with him yesterday; but his having favoured me with no answer, plainly showed that all I could represent to him for the good of his country would have no effect, as long as his evil counsellors were about his person, who would in the end deprive him of his government and ruin the company's affairs. For this reason I had sent Colonel Caillaud with forces to wait upon him, and to expel those bad counsellors, and place his affairs in a proper state, and I would shortly follow. This letter I gave to the colonel, to send to the nabob at such a time as he should think most expedient. Measures were taken at the same time for seizing his three unworthy ministers, and to place Cossim Ali Khan in the full management of all the affairs, in quality of deputy and successor to the nabob.

"The necessary preparations being made with all care and secrecy possible, the colonel embarked with the troops, joined Cossim Ali Khan without the least alarm, and marched into the court-yard of the palace just at the proper instant. The gates of the inner court being shut, the colonel formed his men without, and sent the letter to the nabob, who was at first in a great rage, and long threatened that he would make what resistance he could, and take his fate. The colonel India. forbore hostilities, and several messages passed between him and the nabob. The affair remained in this doubtful state for two hours, when the nabob, finding his persisting was to no purpose, sent a message to Cossim Ali Khan, informing him that he was ready to send the seals and all the ensigns of dignity, provided he would agree to take the whole charge of the government upon him, to discharge all arrears due to the troops, to pay the usual revenue to the king, to save his life and honour, and to give him an allowance sufficient for his maintenance. All these conditions being agreed to, Cossim Ali was proclaimed; and the old nabob came out to the colonel, declaring that he depended on him for his life. The troops then took possession of all the gates; and the old nabob was told, that not only his person was safe, but his government too if he pleased, of which it was never intended to deprive him. He answered, that he had now no more business in the city, where he should be in continual danger from Cossim Ali Khan; and if he was permitted to go and live at Calcutta, he should be contented. Cossim Ali Khan was now placed on the musnud, and the people in general seemed much pleased with the revolution. The old nabob did not think himself safe even for one night in the city. Cossim Ali Khan supplied him with boats, and permitted him to take away about 60 of his family, with a reasonable quantity of jewels. He begged that he might sleep in his boat that night; which he accordingly did, and on the morning of the 22d of October he set out for Calcutta, and arrived there on the 29th. He was met by a deputation from the council, and treated with every mark of respect due to his former dignity."

The second account of this affair was not published till the 11th of March 1762, and was signed Eyre Coote, P. Amyatt, John Cavnac, W. Ellis, S. Batson, H. Verelst. "In September 1760 (say they), when there was not the least appearance of a rupture or disgust between us and the nabob, but friendship and harmony subsisting, Meer Cossim Khan his son-in-law came down to Calcutta, and having staid a short time returned to Moorshedabad. A few days after, Mr Vansittart went up to that city on the pretence of a visit to the nabob Meer Jaffier. Colonel Caillaud, with 200 Europeans and some Sepoys, attended him; who, it was pretended, were going to join the army at Patna. When Mr Vansittart arrived at Moradbang, the nabob paid him two visits; at the last of which Mr Vansittart gave him three letters, proposing the reformation of the abuses in his government, insisted on his naming some person among his relations to take charge of the subahship, and particularly recommended Cossim Ali Khan, who was sent for, and the nabob desired to stay till he came: But the nabob being greatly fatigued, was suffered to depart to his palace. The night and following day passed in concerting measures with Cossim Ali how to put in execution the plan before agreed on in Calcutta, where a treaty was signed for this purpose. In consequence of these deliberations, our troops crossed the river next night, and being joined by Cossim and his party, surrounded the nabob's palace. A letter from Mr Vansittart was sent in to the nabob, demanding his compliance with what had been proposed to him. To this the nabob returned for answer, 'that he

never expected such usage from the English; that while a force was at his gates, he would enter into no terms.' A message was sent in, that if he did not directly comply, they should be obliged to storm the palace. Astonished and terrified at this menace, he opened the gates, exclaiming, that "he was betrayed; that the English were guilty of perjury and breach of faith; that he perceived their designs against his government; that he had friends enough to hazard at least one battle in his defence: but although no oaths were sacred enough to bind the English, yet as he had sworn to be their faithful friend, he would never swerve from his engagement, and rather suffer death than draw his sword against them." So suspicious was he of being sold, that he desired to know what sum of money Cossim Ali Khan was to give for the subahship, and he would give half as much more to be continued. He hoped, however, if they intended to dethrone him, that they would not leave him to the mercy of his son-in-law, from whom he feared the worst; but wished they would carry him from the city, and give him a place of safety in Calcutta. "This last request of the nabob was construed in the light of a voluntary resignation. Our troops took possession of the palace; Meer Cossim was raised to the musnud; and the old nabob hurried into a boat with a few of his domestics and necessaries, and sent away to Calcutta in a manner wholly unworthy of the high rank he so lately held, as was also the scanty subsistence allowed him for his maintenance at Calcutta by his son-in-law. Thus was Jaffier Ali Khan deposed, in breach of a treaty founded on the most solemn oaths, and in violation of the national faith."

According to this account, the servants of the company, who were the projectors of the revolution, made no secret that there was a present promised them of 20 lacks of rupees from Cossim, who was desirous of making the first act of his power the assassination of Jaffier, and was very much displeased when he found that the English intended giving him protection at Calcutta.

It could scarce be supposed that Meer Cossim, raised to the nabobship in the manner we have related, could be more faithful to the English than Meer Jaffier had been. Nothing advantageous to the interests of the company could indeed be reasonably expected from such a revolution. No successor of Meer Jaffier could be more entirely in subjection than the late nabob, from his natural imbecility, had been. This last consideration had induced many of the council at first to oppose the revolution; and indeed the only plausible pretence for it was, that the administration of Meer Jaffier was so very weak, that, unless he was aided and even controuled by some persons of ability, he himself must soon be ruined, and very probably the interests of the company along with him. Meer Cossim, however, was a man of a very different disposition from his father-in-law. As he knew that he had not been served by the English out of friendship, so he did not think of making any return of gratitude; but instead of this, considered only how he could most easily get rid of such troublesome allies. For a while, however, it was necessary for him to dissemble, and to take all the advantage he could of the power of his allies whilst it could be serviceable to him. By their assistance he cleared his dominions of invaders, and strengthened his frontiers against them; he reduced, by means of the same assistance, the rajahs or independent Indian chiefs who had rebelled in the time of his predecessor, obliging them to pay the usual tribute; by which means he repaired his finances, and thereby secured the discipline and fidelity of his troops. Having thus, by the assistance of the English forces, brought his government into subjection, he took the most effectual means of securing himself against their power. As the vicinity of his capital, Muxadabad, to Calcutta, gave the English factory there an opportunity of inspecting his actions, and interrupting his designs when they thought proper, he took up his residence at Mongheer, a place 200 miles farther up the Ganges, which he fortified in the best and most expeditious manner he could. Being very sensible of the advantages of the European discipline, he resolved to form his army on a new model. For this purpose he collected all the Armenian, Persian, Tartar, and other soldiers of fortune, whose military characters he supposed might serve to raise the spirits of his Indian forces, and abate their natural timidity. He also carefully collected every wandering European who had borne arms, all the Sepoys who had been dismissed from the English service, distributing them among his troops in order to teach them the English exercise. He changed the fashion of the Indian muskets from matchlocks to firelocks; and as their cannon were almost as deficient as their small arms, he procured a pattern of one from the English, by which he soon formed a train of artillery; and having thus done every thing in his power to enable himself to withstand the English by force of arms, he resolved also to free his court from their emissaries, by imprisoning or putting to death every person of any consequence in his dominions who had shown any attachment to their interest.

91 Meer Cossim schemes against the English.

His next step was to free himself from some of those restraints which his predecessor Meer Jaffier, and even he himself, had been obliged to lay upon the trade of the country, in order to gratify the avarice of his European allies. At his accession indeed he had ceded to the company a tract of land worth no less than 700,000l. annually, besides 70,000. a-year on other accounts. All this, however, was not sufficient; the immunities granted them in trade were of still worse consequences than even those vast concessions. He knew by experience the distress which these immunities had brought upon his predecessor, and therefore determined to put an end to them. In pursuance of this resolution, he began, in the year 1762, everywhere to subject the English traders to the payment of certain duties throughout his dominions, and required that their disputes, if beyond the limits of their own jurisdiction, should be decided by his magistrates. This gave such an alarm at Calcutta, that, in November 1762, the governor Mr Vansittart waited on him in person at Mongheer, in order to expostulate with him upon the subject. The nabob answered his remonstrances in the following manner. "If (said he) the servants of the English company were permitted to trade in all parts, and in all commodities, custom free, as many of them now pretend, they must of course draw all the trade into their own hands, and my customs would be of so little value, that it would be much more for my interest to lay trade entirely open, and collect no customs from any person whatever upon

92 He lays duties on the English traders.

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any kind of merchandise. This would draw a number of merchants into the country, and increase my revenues by encouraging the cultivation and manufacture of a large quantity of goods for sale, at the same time that it would effectually cut off the principal subject of disputes which had disturbed the good understanding between us, an object which I have more than any other at heart."

By these intimations Mr Vansittart was very much disconcerted; nor indeed was it in any person's power to devise a plausible answer. What the nabob had threatened was evidently in his power; and though he had laid the trade entirely open, no reasonable fault could have been found with him. The proceeding, however, tended evidently to destroy the private trade carried on by the gentlemen of the factory; and even to prejudice, as they said, that of the company itself. Mr Vansittart therefore thought proper to submit to certain regulations, by which the trade of the English was put under certain restrictions.

93 A new agreement concluded with Mr Vansittart, and disowned by the council.

This new agreement being instantly put in execution on the part of the nabob, excited the utmost indignation at Calcutta. On the 17th of January 1763, the council passed a resolution, disavowing the treaty made by the governor, and affirmed that he assumed a right to which he was by no means authorized; that the regulations proposed were dishonourable to them as Englishmen, and tended to the ruin of all public and private trade; and that the president's issuing out regulations independent of the council was an absolute breach of their privileges. They sent orders therefore to all the factories, that no part of the agreement between the governor and nabob should be submitted to. Application was again made to Meer Cossim to persuade him to a third agreement; but before the success of this negociation could be known, hostilities commenced on the part of the English.

94 The city of Patna taken by the English but immediately after retaken.

There was at that time in the city of Patna (situated on the Ganges, about 300 miles above Calcutta), a fortified factory belonging to the East India company, where were a few European and Indian soldiers. By this factory the city was suddenly attacked on the 25th of June 1763, and instantly taken, though it was defended by a strong garrison, and the fortifications had been newly repaired. The governor and garrison fled out into the country on the first appearance of danger; but perceiving that the victors took no care to prevent a surprise, he suddenly returned with a reinforcement from the country, retook the city, and either cut in pieces or drove into their fort all the English who were in it, after having been only four hours in possession of the place. The English, disheartened by this disaster, did not now think themselves able to defend their fort against the Indians; for which reason they left it, with a design to retreat into the territories of a neighbouring nabob; but being pursued by a superior force, they were all either killed or taken.

95 Massacre of the English deputies.

This piece of perfidy, for such it certainly was, the nabob repaid by another, viz. slaughtering the deputies who had been sent him by the council of Calcutta to treat about a new agreement with regard to commercial affairs. They set out from Mongheer on the 24th of June, having been unable to bring Meer Cossim to any terms; and though he furnished them with the usual passports, yet, as they were passing the city of Muxadabad, they found themselves attacked by a number of troops assembled for that purpose on both sides of the river, whose fire killed several gentlemen in the boats. Mr Amyatt, the chief of the embassy, landed with a few Sepoys, whom he forbade to fire, and endeavoured to make the enemy's troops understand that he was furnished with the nabob's passports, and had no design of committing any hostilities; but the enemy's horse advancing, some of the Sepoys fired notwithstanding Mr Amyatt's orders to the contrary. On this a general confusion ensued, and Mr Amyatt, with most of the small party who attended him, were cut in pieces.

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These acts of treacherous hostility were soon followed by a formal declaration of war. Meer Jaffier, notwithstanding the crimes formerly alleged against him, was proclaimed nabob of Bengal, and the army immediately took the field under the command of Major Adams. The whole force, however, at first consisted only of one regiment of the king's troops, a few of the company's, two troops of European cavalry, ten companies of Sepoys, and 12 pieces of cannon. These very soon came to action with the enemy; and having got the better in two skirmishes, cleared the country of them as far as Cassimbuzar river, a branch of the Ganges, which lay between Calcutta and Muxadabad, or Moorshedabad, the capital of the province.

96 Meer Jaffier again proclaimed nabob.

97 Major Adams marches against Meer Cossim.

This war was now carried on with uninterrupted success on the part of the English; nor does it appear that all the pains taken by Meer Cossim to discipline his troops had made them in the least more able to cope with the Europeans. The English were suffered to pass the river without opposition; but an army of 10,000 Indians was advantageously posted between the river and the city. These were entirely defeated, and Major Adams pushed on directly for the capital. In his way he found the Indians again strongly posted with intrenchments 15 feet high, and defended by a numerous artillery. This strong post was taken by stratagem; a feint being made with a small body of troops against that part where the enemy had collected their greatest strength. Thus the attention of the enemy was drawn entirely to that place, without regarding others where no attack was apprehended. The greatest part of the English army, however, had in the night-time marched round the Indian fortification, and by day-break made a furious assault on a place where there was only a slight guard. These instantly fled; the intrenchments were abandoned; and the city, which was protected only by them, fell of course into the hands of the conquerors.

98 The Indians defeated.

This success of the English served only to make them redouble their diligence. They now penetrated into the heart of the province, crossed the numerous branches of the Ganges, and traversed morasses and forests in quest of their enemy. Meer Cossim, on the other hand, was not wanting in his defence; but the utmost efforts he could use were totally insufficient to stop the career of an enemy so powerful and now flushed with victory. The two armies met on the banks of a river called *Nunas Nullas*, on the 2d of August 1763. The Indians had chosen their post with great judgment, and had much more the appearance of an European army than ever was observed before, not only in their arms and

99 Meer Cossim entirely defeated at Nunas Nullas.

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and accoutrements, but in their division into brigades, and even in their clothing. The battle was much more obstinate than usual, being continued for four hours; but though the Indian army consisted of no fewer than 20,000 horse, and 8000 foot, the English proved in the end victorious, and the enemy were obliged to quit the field with the loss of all their cannon.

From this time the Indians did not attempt any regular engagement with the English. They made a stand indeed at a place called *Auda Nulla*, which they had fortified in such a manner that it seemed proof against any sudden attack. But here also they suffered themselves to be deceived in a manner similar to that above mentioned, and the place was taken with great slaughter. They now abandoned a vast tract of country; and though there were several very defensible posts one behind another, so much were they disheartened by this misfortune, that they never attempted to stop the progress of the English, but laid open the whole country to the very gates of Mongheer.

100 Mongheer taken.

The next operation was the siege of Mongheer itself; which notwithstanding all the pains Meer Cossim had been at to fortify it, held out no more than nine days after the trenches were opened; so that nothing now remained to complete the conquest of Bengal but the reduction of the city of Patna. The unfortunate Meer Cossim, in the mean time, enraged at the irresistible progress of the English, vented his rage on the unhappy prisoners taken at Patna; all of whom, to the number of about 200, he caused to be inhumanly murdered. This villany was perpetrated by one *Somers*, a German, who had originally been in the French service, but deserted from them to the English East India company, and from the company to Meer Cossim. This assassin, by the Indians called *Soomeroo*, having invited the English gentlemen to sup with him, took the opportunity of borrowing their knives and forks, on pretence of entertaining them after the English manner. At night, when he arrived, he stood at some distance in the cook-room to give his orders; and as soon as the two first gentlemen, Mr Ellis and Lushington, entered, the former was seized by the hair, his head pulled backward, and his throat cut by another. On this Mr Lushington knocked down the murderer with his fist, seized his sword, wounded one and killed two before he himself was cut down. The other gentlemen being now alarmed, defended themselves, and even repulsed the Sepoys with plates and bottles. Somers then ordered them on the top of the house to fire down on the prisoners; which they obeyed with reluctance, alleging that they could not think of murdering them in that manner, but if he would give the prisoners arms, they would fight them; on which he knocked several of them down with bamboos. The consequence was, that all the gentlemen were either shot or had their throats cut. Dr Fullarton was the only person who escaped, having received a pardon from the tyrant a few days before the massacre.

101 Inhuman murder of the English prisoners at Patna.

This inhumanity was far from being of any service to the cause of Meer Cossim. Major Adams marched without delay from Mongheer to Patna; and as the place was but indifferently fortified, it could make but a feeble resistance. The cannon of the English soon made a practicable breach, and in no longer time than eight days this great city was taken by storm. Thus the nabob was deprived of all his fortified places, his army reduced to a small body, and himself obliged to fly to Sujah Dowla nabob of Oude, who acted as grand vizier to the Mogul. Here he was kindly received, and an asylum promised for his person, but admittance was refused to his army, nor would this prince consent at any rate to make his country a seat of war. The English were now entire masters of Bengal; for though Meer Jaffier was proclaimed nabob, it is not to be supposed that he had now any authority farther than what they pleased to give him. Major Adams did not long survive the conquest of Patna, which was taken on the 6th of November 1763; he died in the month of March 1764.

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102 Patna taken, and Bengal entirely reduced by the English.

Meer Cossim being thus driven out, an agent was sent from Calcutta to Sujah Dowla, proposing an alliance with him and the Mogul, who was along with him, and offering to assist them against Meer Cossim or any other enemy who should attempt an invasion of their dominions; in return for which, it was expected that they should declare themselves open enemies to Meer Cossim, and use their utmost endeavours to seize and deliver him up with all his effects. This design was communicated to Major Adams on the 8th of December 1763; but as he was next day to resign the command of the army, Major Carnac was desired to take the command upon him, and to watch the motions of Meer Cossim, as well as to guard the dominions of Meer Jaffier against any hostilities which might be attempted. It was also resolved, that in case Meer Cossim should prevail upon the Mogul and Sujah Dowla to assist him, Major Carnac was desired to advance to the banks of the river Carumnassa, and there oppose the entrance of any hostile army.

103 Alliance proposed with Sujah Dowla.

It soon appeared that the friendship of the English was not what Sujah Dowla desired. He considered them as rapacious usurpers, who having got a footing in the country under pretence of commerce, could be satisfied with nothing less than the entire possession of it, to the ruin of the natural inhabitants. In the beginning of February 1764, therefore, it was known that Sujah Dowla had determined to assist Meer Cossim in attempting to recover Bengal. The president and council on this wrote him, that though they heard such a report, they could not believe it, considering the former connections subsisting between him and the chiefs of the company, and were persuaded he would not act in such an unjust manner: but if it really was his intention to espouse the cause of Meer Cossim, they informed him that they were resolved to keep Bengal free from troubles, and carry the war into the dominions of Sujah Dowla himself. To this the nabob replied by enumerating the many favours conferred on the English by the Mogul. "Notwithstanding these (says he) you have interfered in the king's country, possessed yourselves of districts belonging to the government, and turned out and established nabobs at pleasure, without the consent of the imperial court. Since you have imprisoned dependants on the court, and exposed the government of the king of kings to contempt and dishonour; since you have ruined the trade of the merchants of the country, granted protection to the king's servants, injured the revenues of the imperial court, and crushed the inhabitants by your acts of violence; and

104 Proposed alliance rejected by Sujah Dowla.

India. since you are continually sending fresh people from Calcutta, and invading different parts of the royal dominions; to what can all those wrong proceedings be attributed, but to an absolute disregard to the court, and a wicked design of seizing the country to yourselves? If these disturbances have arisen from your own improper desires, desist from such behaviour in future; interfere not in the affairs of government; withdraw your people from every part, and send them to their own country; carry on the company's trade as formerly, and confine yourselves to commercial affairs," &c. Another letter, much to the same purpose, was sent to Major Carnac; but the president and council of Calcutta, instead of paying any regard to the remonstrances of the nabob, determined to commence an immediate and offensive war against him.

Notwithstanding this resolution, several difficulties occurred in carrying on a war at this time. The principal were the death of Major Adams, whose name had become formidable to the Indians, and the mutinous disposition of the army. The former was obviated by the appointment of Colonel Hector Munro, who, in military skill, appeared nothing inferior to his predecessor; and the mutinous disposition of the soldiery was got the better of by a most severe example of the mutineers, 24 of whom were blown away from the mouths of cannon. Hostilities were commenced on the part of Meer Cossim, who cut off a small party of English troops, and sent their heads to the Mogul and Sujah Dowla. An army of 50,000 men was collected, with a most formidable train of artillery, such as might be supposed to follow an European army of equal numbers. This prodigious armament seems to have effaced all the caution of Meer Cossim; for though he had formerly experienced the bad effects of engaging the English in a pitched battle, yet he now thought proper to try his fortune a second time in the same way. The two armies met on the 22d of October 1764, at a place called *Buxard*, on the river Carumnassa, about 100 miles above the city of Patna. The event was similar to that of other engagements with the English, to whom it never was possible for any advantages either in situation or number to make the Indians equal. The allied army was defeated with the loss of 6000 killed on the spot, 130 pieces of cannon, a proportionable quantity of military stores, and all their tents ready pitched; while, on the side of the conquerors, only 32 Europeans and 239 Indians were killed, and 57 Europeans and 473 Indians wounded.

105 Sir Hector Munro succeeds Major Adams.

106 Defeats the Indians at Buxard.

107 Is repulsed at Chanda Geer.

The only place of strength now belonging to the allies on this side the river was a fort named *Chanda Geer*. The reduction of this place, however, might well have been deemed impracticable, as it stood on the top of a high hill, or rather rock, situated on the very brink of the Ganges, by which it could be constantly supplied with provisions; and as to military stores, it could not stand in need of any as long as stones could be found to pour down on the assailants. Notwithstanding all those difficulties, however, Colonel Munro caused his soldiers advance to the attack; but they were received with such volleys of stones, which the Indians threw both with hands and feet, that they were repulsed in a very short time; and though the attack was renewed the next day, it was attended with no better success; on which the English commander encamped with his army under the walls of Benares. India.

Soon after this, Colonel Munro being recalled, the command of the army devolved on Sir Robert Fletcher, a major in the company's troops. The nabob, in the mean time, instead of attacking the English army at once, contented himself with sending out parties of light horse to skirmish with their advanced posts, while the main body lay at the distance of about 15 miles from Benares, which rendered it very dangerous for them to move from their place. On the 14th of January 1765, however, Sir Robert ventured at midnight to break up his camp under the walls of Benares, and to march off towards the enemy, leaving a party to protect that place against any attempt during his absence. In three days he came up with the main body of Indians, who retreated before him; on which he resolved to make another attempt on Chanda Geer, before which the late commander had been foiled. His success would in all probability have been no better than that of his predecessor, had not the garrison mutinied for want of pay, and obliged the commander to surrender the place.

108 Chanda Geer taken by Sir Robert Fletcher.

The reduction of Chanda Geer was followed by that of Eliabad, the capital of the enemy's country, a large city on the Ganges, between 60 and 70 miles above Chanda Geer, defended by thick and high walls and a strong fort; soon after which Sir Robert was superseded in the command of the army by Major Carnac. Sujah Dowla in the mean time had been abandoned by the Mogul, who concluded a treaty with the English soon after the battle of Buxard. He did not, however, give himself up to despair, but gathered together, with great assiduity, the remains of his routed armies; and seeing that his own territories could not supply him with the requisite number of troops, he now applied to the Mahrattas for assistance. But these people, though very formidable to the other nations of Indostan, were far from being able to cope with the English. On the 20th of May 1765, General Carnac having assembled his troops, marched immediately to attack them; and having gained a complete victory at a place called *Calpi*, obliged them to retreat with precipitation across the Yumna into their own country.

109 Sujah Dowla assisted by the Mahrattas.

110 Who are defeated, and Sujah Dowla submits.

Sujah Dowla, now destitute of every resource, determined to throw himself on the clemency of the English. Previous to this, however, he allowed Meer Cossim and the assassin Somers to escape; nor could any consideration ever prevail upon him to deliver them up. Three days after the battle of Calpi, the nabob surrendered himself to General Carnac, without stipulating any thing in his own favour, farther than that he should await the determination of Lord Clive concerning him.

111 Young nabob of Bengal hardly used by the English.

In the beginning of February this year died Meer Jaffier Ali Cawn, nominal nabob of Bengal. The succession was disputed betwixt his eldest surviving son Najem il Doula, a youth of about 18 years of age, and a grandson by his eldest son Miran, at that time only seven years old. As the English were in reality absolute sovereigns of the country, it was debated in the council of Calcutta whether Meer Jaffier's son should be allowed to succeed, according to the custom of the country,

country, or the grandson, according to the English custom. The point being carried in favour of Najem, it was next debated on what terms he should be admitted to the succession. The late nabob, among other impositions, had obliged himself to support an army of 12,000 horse and as many foot. It was alleged on this occasion, that he had not fulfilled his engagement; that he had disbanded most of the troops; that at best they were but an useless burden, having never answered any purpose in real service, for which reason the company had been obliged to augment their military establishment: it was therefore now judged expedient that the nabob should settle a sum, upwards of 800,000l. annually, on the company, to be paid out of the treasury: that he should also discard his prime minister and great favourite Nuncomar, and receive in his place a person appointed by the council, who was to act in the double capacity of minister and governor to assist and instruct him. The council were also to have a negative upon the nomination of all the superintendants and principal officers employed in collecting or receiving of the revenues; that he should take their advice, and have their consent to such nominations whenever they thought proper to interfere in them. He was also to receive their complaints, and pay a due attention to them upon the misbehaviour of any of the officers who either were appointed already or should be in time to come.

With these extravagant requisitions the young nabob was obliged to comply, though he had discernment enough to perceive that he was now an absolute slave to the council at Calcutta. Though obliged by treaty to dismiss Nuncomar from the office of prime minister, he still continued to show him the same favour, until at last he was charged with carrying on a treasonable correspondence with Sujah Dowla, for which the nabob was enjoined to send him to Calcutta to take his trial. The unfortunate prince used every method to deliver his favourite from the impending danger, but to no purpose: he was obliged to submit to the mortification of having all his offers with regard to his release rejected, though the committee at Calcutta afterwards thought proper to set him at liberty without any trial.

These extraordinary powers, exerted in such a despotic manner by the council of Calcutta for such a length of time, could not but at last induce their superiors to circumscribe them in some degree, by appointing others who should act independently even of this council, and who might be supposed to be actuated by more upright and honourable principles than had hitherto appeared in their conduct. The great character which Lord Clive had already gained in the east, justly marked him out as a proper person for adjusting the affairs of Bengal. On the 3d of May 1765 he arrived in the east, with full powers as commander in chief, president, and governor of Bengal. An unlimited power was also committed to a select committee, consisting of his lordship and four gentlemen, to act and determine every thing themselves, without dependence on the council. It was, however, recommended in their instructions, to consult the council in general as often as it could be done conveniently; but the sole power of determining in all cases was left with them, until the troubles of Bengal should be entirely ended. By these

112 Lord Clive arrives in Bengal with unlimited powers.

gentlemen a plan of reformation was instantly set about; by which, however, violent disputes were occasioned: but the committee, disregarding these impotent efforts, exerted their authority to the full extent, seldom even acquainting the council with their transactions, and never allowing them to give their opinion on any occasion.

113 Sujah Dowla restored.

On taking the affairs of Bengal into thorough consideration, Lord Clive found that the success of the British arms could be productive of nothing but wars; that to ruin Sujah Dowla was to break down the strongest barrier which the Bengal provinces could have against the incursions of the Mahrattas and other barbarous people to the westward, who had long desolated the northern provinces; and the Mogul, with whom the company had concluded a treaty, was utterly unable to support himself, and would require the whole English power in the east to secure him in his dignity. His lordship therefore found it necessary to conclude a treaty with Sujah Dowla. The Mogul was satisfied by obtaining a more ample revenue than he had for some time enjoyed; by which means he might be enabled to march an army to Delhi to take possession of his empire. For the company his lordship obtained the office of duan or collector of revenues for the province of Bengal and its dependencies. Thus Sujah Dowla was again put in possession of his dominions, excepting a small territory which was reserved to the Mogul, and estimated at 20 lacks of rupees, or 250,000l. annually. The company were to pay 26 lacks of rupees, amounting to 325,000l. sterling. They engaged also to pay to the nabob of Bengal an annual sum of 53 lacks, or 662,500l. for the expences of government, and the support of his dignity. The remainder of the revenues of Bengal were allotted to the company, who on their part guaranteed the territories at that time in possession of Sujah Dowla and the Mogul.

114 Affairs of Bengal settled by Lord Clive.

Thus the East India company acquired the sovereignty of a territory equal in extent to the most flourishing kingdom in Europe. By all this, however, they were so far from being enriched, that the disorder of their affairs attracted the attention of government, and gave the British ministry an opportunity at least of depriving them of their territorial possessions, and subjecting the province of Bengal to the authority of the crown *. New misfortunes also speedily occurred, and the company found a most formidable enemy in Hyder Aly, or Hyder Naig. This man, from the rank of a common Sepoy, had raised himself to be one of the most considerable princes in the empire of Indostan. Being sensible that the power of the English was an insuperable bar to his ambitious designs, he practised on the nizam of the Deccan, and partly by promises, partly by threats, engaged him to renounce his alliance with the company, and even to enter into a war against them. As he had been at great pains to introduce the European discipline among his troops, and had many renegadoes in his service, he imagined, that with the advantage of numbers he should certainly be able to cope with his antagonists in the open field. In this, however, he was deceived; for on the 26th of September 1767, his army was entirely defeated by Colonel Smith at a place called *Errour* near Trinomallee; after which the nizam thought it advisable to desert his

* See *East India Company.*

115 War with Hyder Aly.

116 He is defeated by Colonel Smith.

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new ally, and conclude another treaty with the English. From the latter, however, he did not obtain peace but at the expence of ceding to them the duanny of the Balegat Carnatic, which includes the dominions of Hyder Aly and some petty princes.

Hyder, thus deserted by his ally, transferred the seat of war to a mountainous country, where, during the year 1767, nothing decisive could be effected; while the Indian cavalry was sometimes enabled to cut off the supplies, and interrupt the communications of their antagonists. During these operations some ships were fitted out at Bombay, which conveyed 400 European soldiers, and about 800 Sepoys, to attack Mangalore, one of Hyder Aly's principal sea-ports, where all his ships lay. This enterprise proved successful, and nine ships were brought away; but too small a garrison having been left in the place, it was almost immediately after retaken, and all who were in it made prisoners by Hyder Aly.

137 Decline of the English affairs, with the cause of their bad success.

In the mean time, an injudicious measure, adopted by the English in their method of managing the army, proved not only of the utmost detriment to their cause, but occasioned disgraces hitherto unheard of in the history of the nation, viz. the desertion of officers from the service of Britain to that of a barbarous prince, and the giving up of forts in such a shameful manner as could not but suggest a suspicion that they had been betrayed.—The original cause of all this mischief was the appointment of *field deputies* to attend the army, and to controul and superintend the conduct of the commander in chief; and these, in the present instance, being deeply concerned in the contracts for the army, took care to regulate its motions in such a manner as best suited their private interest or convenience. Hyder Aly did not fail to improve the errors consequent upon this kind of management to his own advantage. General Smith had penetrated far into his country, taken several of his fortresses, and was in a fair way of becoming master of his capital, when all his operations were checked at once by the field deputies. His antagonist being thus allowed some respite, suddenly entered the Carnatic with a numerous army of horse, ravaging and destroying every thing at pleasure. Thus the English were obliged to relinquish all their conquests in order to defend their own territories; while this reverse of fortune not only discouraged the allies of the English, but even produced in them an inclination to desert their cause, and go over to Hyder Aly, while those who remained faithful paid dearly for their attachment. The nabob of Arcot, the most faithful ally the English ever had, suffered extremely on this occasion. Hyder Aly had long entertained a violent enmity against this prince, most probably on account of his inviolable attachment to the English. His dominions were therefore ravaged without mercy; and, thus while Hyder gratified his personal resentment against him, he cut off from the English one of the principal resources they had for carrying on the war.

On the return of the company's forces to the defence of the Carnatic, they found themselves very little able to cope with their adversary; for, besides the continuance of the same causes which had formerly contributed to their want of success, they had been very much weakened in their expedition. Hyder Aly had also the prudence to avoid a general engagement, but frequently intercepted the convoys of the English, cut off their detached parties, and wearied them out with long and continual marches. The news of his success against an enemy hitherto invincible by all the powers of India, so raised his reputation, that adventurers flocked to him from all parts; by which means his cavalry were soon increased to upwards of 90,000; to which, however, his infantry bore no proportion.

India.

Notwithstanding all this success, it appears that the forces of Hyder Aly were altogether unable to cope with those of Britain, even when there was the greatest imaginable disparity of numbers. A detachment of the company's forces had made an assault upon a fort called *Mulwaggle*, in which they were repulsed with some loss. This, with the small number of the detachment, encouraged Hyder Aly to march at the head of a great part of his army to the protection of the fort. The commanding officer, however, Colonel Wood, did not hesitate, with only 460 Europeans and 2300 Sepoys, to attack his army, consisting of 14,000 horse, 12,000 men armed with matchlock guns, and six battalions of Sepoys. The engagement lasted six hours; when at last Hyder Aly, notwithstanding his numbers, was obliged to retreat, leaving the field covered with dead bodies; the loss of the British being upwards of 300 killed and wounded. This engagement, however, was attended with no consequences affecting the war in general, which went on for some time in the same manner, and greatly to the disadvantage of the company. The divisions and discontents among the officers and council daily increased, the soldiers deserted, and every thing went to ruin. The revennes of the establishment of Madras being at last unequal to the expences of the war, large remittances were made from Bengal to answer that purpose; and as these were made in a kind of base gold coin, the company is said by that means alone to have lost 40,000l. in the difference of exchange only. At last Hyder Aly having given the English army the slip, suddenly appeared within a few miles of Madras; which occasioned such an alarm, that the presidency there were induced to enter into a negociation with him. The Indian prince, on his part, was very ready to hearken to proposals of peace upon any reasonable terms. An offensive and defensive treaty was therefore concluded on the 3d of April 1769, on the simple condition that the forts and places taken on both sides should be restored, and each party sit down contented with their own expences.

118 Hyder Aly defeated by Colonel Wood.

119 A treaty concluded with him.

120 Broken by the English.

By this treaty it was particularly stipulated, that in case of either party being attacked by their enemies, the other should give them assistance; and in this case even the number of troops to be supplied by each was specified. It soon after appeared, however, that the presidency of Madras were resolved to pay very little regard to their engagements. Hyder Aly having in a little time been involved in a war with the Mahrattas, applied for assistance, according to agreement; but was refused by the presidency, who pretended to fear a quarrel with the Mahrattas themselves. As the latter are a very powerful and warlike nation, Hyder Aly found himself overmatched, and therefore applied several times to the English for the assistance he had a right to expect; but was constantly refused on various pretences: which convinced him at last that he could place

no dependence on the friendship of the English, and filled him with an implacable hatred against them. As soon, therefore, as he could make up his differences with the Mahrattas, he resolved to recover his losses, and revenge himself on those faithless allies. With this view he applied himself to their rivals the French; whom no Indian nation ever found backward in supplying them with the means of defence against the English. By their means he obtained military stores in the greatest abundance, a number of experienced officers and soldiers; and the European discipline was brought to much greater perfection than even he himself had ever been able to bring it before this period. Thus, in a short time, imagining himself a match for the Mahrattas, he renewed the war; and gained such decisive advantages, as quickly obliged them to conclude an advantageous treaty with him.

121 War between the English and Mahrattas.

It now appeared that the English, notwithstanding their pretended ill-will to quarrel with the Mahrattas, had not the least hesitation at doing so when their interest was concerned. In order to understand the subsequent transactinns, however, we must observe, that the Mahrattas, like other nations of Indostan, were originally governed by princes called *rajahs*, who reigned at Setterah; and though in process of time they came to be divided into a number of petty states, yet they paid a nominal respect to the ram-rajah, who had a right to assemble their chiefs, and order out their troops on any necessary occasion. By degrees this dignity of ram-rajah or sou-rajah (as he was also called), became merely titular, the administration being entirely possessed by the paishwa or chancellor. This office being usurped by one particular family, Nana-row, the reigning paishwa, seized the ram-rajah and confined him in a fortress near Setterah. At his death he left two sons Mada-row and Narain-row; of whom the former, as being the elder, succeeded him in the paishwaship. Monogee Boosla, or Bouncella, the immediate predecessor of Moodagee Boosla, rajah of Berar, was one of the pretenders to the dignity of ram-rajah, as being the nearest of kin; at the same time that Roganaut-row, called also Ragobah, uncle to Mada-row himself, pretended to the paishwaship. On this account the latter was confined by Mada-row, but who imprudently released him a little before his death, and even recommended to him in the most affectionate manner the care of his brother Narain-row, who was to succeed to the paishwaship. The care he took in consequence of this recommendation was such as might easily have been imagined; the unhappy Narain-row was murdered, and Roganaut-row the assassin fled to Bombay; where, on promising a cession of territory, he was protected and encouraged in his pretensions. The Mahrattas remonstrated against this behaviour; but the English had determined at all events to profit by the civil dissensions of the Indians, and therefore paid no regard to the justice or injustice of their cause. The Mahrattas therefore not only made up their differences with Hyder Aly, as has been already mentioned, but became determined enemies to the English, at the same time that a dangerous confederacy was formed among the most powerful princes of India to expel from that part of the world those intruders, whose avarice could be satisfied with no concessions, and whom no treaties could bind when it served their turn to break them.

The resentment of Hyder Aly was particularly directed against the presidency of Madras for the reasons already given; he had also received fresh provocation by their causing a body of troops march through his dominions without his leave, and that to the assistance of a prince for whom he had no great friendship; also by the capture of the French settlement of Mahie, on the coast of Malabar, which he said was withiu his dominions, and consequently that the French were under his protection. His troops were therefore assembled from every quarter, and the greatest preparations made for a powerful invasion. The presidency of Madras in the mean time spent their time in mutual altercations, neglecting even to secure the passes of the mountains, through which only an invasion could be made, until their active antagonist, having seized and guarded those passes, suddenly poured out through them at the head of 100,000 men, among whom was a large body of European troops under French officers, and commanded by Colonel Lally, a man of great bravery and experience in war.

122 Dreadful invasion by Hyder Aly.

The alarm was given on the 24th of July 1780 that Hyder Aly's horse were only nine miles distant from Madras. The inhabitants instantly deserted their houses and fled into the fort; while the unresisted barbarian burnt the villages, reduced the inferior forts, and prepared to lay siege to the capital. It being now absolutely necessary to make some resistance, measures were taken for assembling the troops; in doing which an express was sent to Colonel Baillie, at that time at Gumeroponda, about 28 miles from Madras, to proceed from thence directly to Conjeveram with the corps under his command, where the main body was to meet him. But when the latter was under marching orders, the first regiment of cavalry positively refused to move without money; and as they persisted in their resolution, were at last made prisoners and sent to Madras. The main body, then, consisting of 1500 Europeans and 4200 Sepoys, under Sir Hector Munro, with their train of artillery, proceeded towards Conjeveram: and such were the fatigues of their march, that 200 men belonging to the 73d regiment were left lying on the road. On their arrival at Conjeveram, they found the town in flames, great bodies of the enemy's cavalry advancing on both flanks, and no appearance of Colonel Baillie's detachment. The march of this body had been impeded by a small river swelled by a sudden fall of rain. On this occasion, the officer who gives the account of this disaster makes the following observation. "In this incident we have a most remarkable proof and example of the danger of procrastination, and on what minute circumstances and sudden springs of the mind the fortune and the general issue of war may depend. Had Colonel Baillie passed over the Tripassore without halting, as some advised, and encamped on its southern instead of its northern bank, the disaster that soon followed would have been prevented, and an order of affairs wholly different from that which took place would have succeeded."

123 Unfortunate expedition of Colonel Baillie.

Hyder Aly having now raised the siege of Arcot, in which he had been employed, marched towards Conjeveram; in the neighbourhood of which he encamped,

camped, and in the course of several days, at different times, offered battle. On the 6th of September, he detached his son Tippoo Saib with the flower of his army to cut off the detachment under Colonel Baillie, who was now at Perrambaukam, a small village distant from the main body about 15 miles, he himself remaining in the neighbourhood of Conjeveram, in order to watch the motions of Sir Hector Munro.

124 He is attacked by Tippoo Saib, but repulses him.

The detachment under Tippoo Saib consisted of 30,000 horse, 8000 foot, with 12 pieces of cannon. Notwithstanding this superiority in number, however, they were bravely repulsed by Colonel Baillie's handful of troops; and a junction was effected with a detachment under Sir Robert Fletcher, sent by Sir Hector Munro on first hearing the noise of the engagement.

This junction was effected on the 9th of September, and next morning orders were given for the whole army to march; Colonel Fletcher's detachment being dispersed in different parts of the line. From the moment they began to march, the enemy played off their rockets, which, however, did but little execution; but about ten at night several guns began to open on the rear of the English. Colonel Baillie, therefore, after some proper manœuvres, caused his troops form a line, while the enemy cannonaded them incessantly with great execution. On this Colonel Baillie detached Captain Rumley with five companies of Sepoy grenadiers to storm their guns; which service they would have undoubtedly accomplished, had not their march been interrupted by a torrent of water which at that time happened to be unfordable. Captain Rumley therefore returned about half an hour after eleven, when the guns of the enemy were heard drawing off towards the English front, and a general alarm was perceived throughout their camp; owing, as was supposed, to their having received intelligence of the party that had been sent to storm their guns. "From their noise, confusion, and irregular firing (says our author), one would have imagined that a detachment of our men had fallen upon them with fixed bayonets. At that critical moment, had a party of grenadiers been sent against them, they would have routed without difficulty the whole of Tippoo's army. Having about ten o'clock in the evening advanced a few hundred yards into an avenue, the detachment remained there in perfect silence till the morning.

125 Is again attacked.

"Colonel Fletcher being asked by some officers, why Colonel Baillie halted? modestly answered, that Colonel Baillie was an officer of established reputation, and that he no doubt had reasons for his conduct. It cannot, however, be concealed, that this halt afforded an opportunity for Tippoo Saib to draw off his cannon to a very strong post by which the English were obliged to pass; and at the same time of informing Hyder of their situation, and suggesting to him the expediency of advancing for the improvement of so favourable a conjuncture.

"On the 10th of September, at five o'clock in the morning, our little army marched off by the right in subdivisions, having their baggage on their right flank and the enemy on their left. A few minutes after six two guns opened on their rear, on which the line halted a few minutes. Large bodies of the enemy's cavalry now appeared on their right flank; and just at the moment when the pagoda of Conjeveram appeared in view, and our men had begun to indulge the hopes of a respite from toils and dangers, a rocket-boy was taken prisoner, who informed them, that Hyder's whole army was marching to the assistance of Tippoo. Four guns now opened on their left with great effect. So hot was the fire they sustained, and so heavy the loss, that Colonel Baillie ordered the whole line to quit the avenue, and present a front to the enemy; and at the same time dispatched Captain Rumley with ten companies of Sepoy grenadiers to storm the enemy's guns.

"Within a few minutes after Captain Rumley had left the line, Tippoo's guns were silenced. Rumley's little detachment immediately took possession of four of the enemy's guns, and completely routed the party attached to them. Captain Rumley, overcome with fatigue, ordered Captain Gowdie, the officer next in command, to lead on the party, and take possession of some more guns placed a few hundred yards in their front. But in a few minutes after, as they were advancing for this purpose, a sudden cry was heard among the Sepoys, of horse! horse! The camp followers, whose numbers were nearly five to one of the troops under arms, were driven on a part of our line by the numerous and surrounding forces of Hyder Aly; who being informed of the embarrassing situation of Colonel Baillie, had left his camp without striking his tents, with a view to conceal his march from the English. A great confusion among our troops was the unavoidable consequence of this sudden onset. The Europeans were suddenly left on the field of action alone: and at that critical moment a detachment from the advanced guard of Hyder's army pressed on with great celerity between our line and Captain Rumley's party. The commanding officer, therefore, apprehensive of being cut off from our little army, judged it most prudent to retreat.

126 Is attacked by Hyder's whole army.

"Colonel Baillie, when he was informed that an immense body of horse and infantry was marching towards him, and that this was supposed to be Hyder's main army, said, "Very well, we shall be prepared to receive them." Hyder's whole forces now appeared incontestably in view; and this barbarian chief, who, as was observed of the Roman general by Pyrrhus, had nothing barbarous in his discipline, after dividing his guns agreeably to a preconcerted plan, opened from 60 to 70 pieces of cannon, with an innumerable quantity of rockets.

"Hyder's numerous cavalry, supported by his regular infantry and European troops, driven on by threats, encouraged by promises, and led on by his most distinguished officers, bore on our little army in different quarters without making the least impression. Our men, both Europeans and Sepoys, repeatedly presented and recovered their fire-arms as if they had been manœuvring on a parade. The enemy were repulsed in every attack; numbers of their best cavalry were killed, and many more were wounded; even their infantry were forced to give way: and Hyder would have ordered a retreat, had it not been for the advice of General Lally, who informed him that it was now too late, as General Munro was most probably

127 Gallant behaviour of the English.

bably advancing on their rear from Conjeveram; for which reason nothing remained but to break the detachment by their artillery and cavalry.

"Tippoo Saib had by this time collected his party together, and renewed the cannonade; and at the same time that the English were under the necessity of sustaining an attack both from the father and son, two of their tumbrils were blown up by Hyder's guns, and a large opening made in both lines. They had now no other ammunition than grape; their guns discontinued firing; and in this dreadful situation, under a terrible fire not only of guns but rockets, losing great numbers of officers and men, they remained from half past seven till nine o'clock.

"On this Hyder Aly, perceiving that the guns were quite silenced, came with his whole army round their right flank. The cavalry charged them in distinct columns, and in the intervals between these the infantry poured in volleys of musquetry with dreadful effect. Mhiar Saib, with the Mogul and Sanoor cavalry, made the first impression. These were followed by the elephants and the Mysorean cavalry, which completed the overthrow of the detachment. Colonel Baillie, though grievously wounded, rallied the Europeans, and once more formed them into a square; and with this handful of men he gained an eminence, where, without ammunition, and most of the people wounded, he resisted and repulsed 13 separate attacks; but fresh bodies of cavalry continually pouring in, they were broken without giving way. Many of our men, desperately wounded, raising themselves from the ground received the enemy on their bayonets.

"Captain Lucas's battalion of Sepoys, at the time when our men moved up to a rising ground, was stationed to the right of the European grenadiers; but that corps, seeing the Europeans in motion, and misunderstanding perhaps this evolution for a retreat, broke in the utmost confusion. The Europeans, bravely sustaining their reputation for intrepid valour, remained in this extremity of distress steady and undaunted, though surrounded by the French troops, and by Hyder's cavalry to the number of 40,000. They even expressed a desire, though their number did not exceed 400, of being led on to the attack. A party of Topasses, who lay at the distance of about 30 yards in our front, kept up an incessant fire of small arms with great effect. Many attempts were made by the enemy's cavalry to break this small body of men; but by the steady conduct of both our officers and men they were repulsed.

128 They are at last defeated.

"Colonel Baillie, finding that there was now no prospect of being relieved by General Munro, held up a flag of truce to one of the chiefs of Hyder's army. But this was treated with contempt, and the surdar endeavoured at the same time to cut off the colonel. The reason the enemy assigned for this was, that the Sepoys had fired after the signal was hoisted. A few minutes after this, our men received orders to lay down their arms, with intimation that quarter would be given. This order was scarcely complied with, when the enemy rushed in upon them in the most savage and brutal manner, sparing neither age nor infancy nor any condition of life; and, but for the humane interposition of the French commanders Lally and Pimoran, who implored and insisted with the conqueror to show mercy, the gallant remains of our little army must have fallen a sacrifice to that savage thirst of blood with which the tyrant disgraced his victory (A)."

129 Throw down their arms, but are cruelly used.

In this unfortunate action near 700 Europeans were killed

(A) In a narrative of the sufferings of the English who survived this fatal day, said to be published by an officer in Colonel Baillie's detachment, we find it related, that "Hyder Aly, seated in a chair in his tent, enjoyed the sight of the heads of the slain, as well as of his prisoners. Colonel Baillie, who was himself very much wounded, was brought to his camp on a cannon, and with several other gentlemen in the same situation laid at the tyrant's feet on the ground and in the open air. In this situation they saw many of the heads of their countrymen presented to the conqueror, some of them even by English officers, who were forced to perform that horrid task; in a little time, however, Hyder ordered no more heads to be brought to him while the English gentlemen were present. A tent was fitted up for Colonel Baillie and his officers, but without straw or any thing else to lie upon, though many of them were dangerously wounded; and as the tent could only contain 10 persons, the rest were obliged to lie in the open air. When the prisoners were removed from place to place, they were wantonly insulted, and even beaten by those who had the charge of them. If the latter halted to refresh themselves under a tree, they would be at the trouble of carrying their prisoners to the side next to the sun, lest they should enjoy the benefit of the shade. Sometimes they were tormented with thirst, at others the people allowed them to drink water out of the palms of their hands, it being reckoned a profanation to allow an European to drink out of a vessel belonging to an Indian,"

In this narrative are likewise mentioned some examples of a recovery from wounds, which, if we can depend on their authenticity, must undoubtedly show a restorative power in the human body altogether unknown in this climate.

"Lieutenant Thomas Bowser received a musket ball in his leg, and after that eight desperate wounds with a scymitar. He lay for seven hours on the spot, deprived of all sensation; but, towards evening, awakened from his trance, stripped of all his clothes, except a pair of under drawers and part of his shirt, with an intense thirst, calling out, and imploring a little water from the enemy. Some were moved with compassion, while others answered his intreaties only with insults and threats of immediate death. Some water, however, was brought from a pool in the field of battle, about 50 or 60 yards from the place where he lay. It was deeply tinged with blood; nevertheless, Mr Bowser being furnished by one of Hyder's soldiers with an earthen *chatty*, or pot containing about a pint, and directed to the place, crawled thither as well as he could. Though struck with horror at the sight of the dead and wounded with which it was filled, he quenched his thirst with the liquid; and having

killed on the spot; the loss on Hyder Aly's part was so great that he industriously concealed it, being enraged that the conquest of such an inconsiderable body should cost him so many of his bravest troops. He seemed ever after to consider the English with an extreme degree of terror; insomuch that, notwithstanding his pretended exultation on account of the present victory, he no sooner heard a report of Sir Hector Munro's march to attack him, than he left his camp in the utmost confusion, abandoning great part of his tents and baggage, as well as the vast numbers that had been wounded in the late action.

130 Sir Eyre Coote appointed to the command of the army.

On the news of Colonel Baillie's disaster, the supreme council of Bengal requested Sir Eyre Coote to take upon him the management of the war; for the carrying on of which a large supply of men and money was instantly decreed. This was readily undertaken by the illustrious officer just mentioned, notwithstanding his very precarious state of health at that time; and from the moment he took upon him the management of affairs, the fortune of the war was changed.

The spirit of dissension, which for a long time had infected the presidency of Madras, was indeed the true cause of all the misfortunes that had happened. This was found by Sir Eyre Coote to be even greater than he had heard by report: the respect and confidence of the natives was wholly lost; the complaints of the officers and soldiers were loud and acrimonious; an inactivity prevailed in all the councils and operations, while the enemy carried every thing before them. Sir Hector Munro had been greatly harassed on his march to Madras, whither he had retreated after Colonel Baillie's disaster; the forces of Hyder Aly had invested all the places in that neighbourhood in such a manner as in a great measure to cut off all supplies; and Arcot, the capital city of the most faithful ally the British ever had, was taken by storm, together with an adjoining fort, by which means an immense quantity of ammunition and military stores fell into the hands of the enemy.

No sooner had Sir Eyre Coote taken upon him the command of the British forces, than his antagonist thought proper to change his plan of operations entirely. He now detached large parties of his numerous forces to lay siege to the principal fortresses belonging to the company; while, with the bravest and best disciplined part, he kept the field against the British commander in person. On the very first appearance of the British army, however, his resolution failed, and he abandoned the siege of every place he had invested, retiring to a considerable distance, on the other side of the river Palaar, without even disputing the passage of it, as it was expected he would have done.

131 Pondicherry revolts, but is quickly reduced.

A respite being thus obtained from the incursions of this formidable enemy, the next operation was to secure Pondicherry, whose inhabitants had revolted. They were, however, easily disarmed, their magazines seized, and all the boats in their possession destroyed; in consequence of which precaution, a French squadron that soon after appeared off Pondicherry was obliged to depart without being furnished with any necessaries. But in the mean time Hyder Aly having drawn large reinforcements from all parts of his dominions, resolved to try his fortune in a pitched battle. His army amounted to 200,000 men, 40,000 of whom were cavalry, and 15,000 well disciplined Sepoys. Still, however, he durst not openly attack the British army in the field, but took a strong post from whence he might harass them in their march. Sir Eyre Coote, however, was not on his part backward to make the attack; and on the other hand Hyder Aly prepared to engage him with all possible advantage. The battle was fought on the 1st of July 1781; and notwithstanding the vast superiority of Hyder Aly's army, he was routed with great slaughter. The Indians, however, made a much more obstinate resistance than usual; the engagement lasted from nine in the morning till four in the afternoon, and the deficiency of the English in cavalry prevented them from pursuing the advantage they had gained.

132 Defeats Hyder Aly.

133 Gains a second victory.

Notwithstanding the loss of this battle, Hyder Aly was soon encouraged to venture another. This was fought on the 27th of August the same year, on the very spot where Colonel Baillie had been defeated. It was more obstinately contested than even the former, being continued with great fury from eight in the morning to near dusk. A number of brave officers and soldiers fell on the part of the British, owing chiefly to the terrible fire of the enemy's artillery and the advantageous position of their troops. At last, however, the Indian army was totally defeated, and driven from every post it had occupied; though from the obstinate resistance made at this time, Hyder began to entertain hopes that his forces might, by a succession of such battles, be at last enabled to cope with the English. He therefore ventured a third battle in some weeks after, but was now defeated with greater loss

134 Hyder defeated a third time.

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having filled his chatty, endeavoured to proceed towards Conjeveram. He had not, however, moved from his place above 300 or 400 yards, when, being quite overcome, he was obliged to lie all night in the open air, during which time there fell two heavy showers of rain. Next morning he proceeded to Conjeveram; but after walking about a mile, was met by some of the enemy's horsemen, by whom he was brought back prisoner, and obliged to walk without any assistance. When delivered up to the enemy's Sepoys, he was so stiff with his wounds, that he could not stoop or even bend his body in the smallest degree.

"The quarter-master sergeant of artillery received so deep a cut across the back part of his neck, that he was obliged to support his head with his hands in order to keep it from falling to a side all the journey. The least shake or unevenness of the ground made him cry out with pain. He once and again ceased from all attempts to proceed; but being encouraged and conjured by his companions to renew his efforts, he did so, reached the camp, and at last, as well as Mr Bowser, recovered."—It is also remarkable, that, according to our author, out of 32 wounded persons only six died; though one would be apt to think that the excessively severe usage they met with would have killed every one.

loss than before. Undiscouraged by this bad success, however, he laid siege to Vellore; and expecting that the relief of it would be attempted, seized a strong pass through which he knew the British army must direct their march. The British commander accordingly advanced, and found the enemy in possession of some very strong grounds on both sides of a marsh through which he was obliged to pass. Here he was attacked on all sides, but principally in the rear, the enemy directing their force principally against the baggage and convoy of provisions designed for the garrison. Their utmost efforts, however, were unsuccessful, and Sir Eyre Coote forced his way to Vellore in spite of all opposition. Hyder Aly did not fail to wait his return through the same pass; and having exerted his utmost skill in posting his troops, attacked him with the utmost vigour: but though the English were assaulted in front and on both flanks at once, and a heavy cannonade kept up during the whole time of the engagement, the Indians were at last defeated with great slaughter.

135 fourth ictory ained by heEnglish.

By these successes the presidency of Madras were now allowed so much respite, that an enterprise was planned against the Dutch settlement of Negapatam, situated to the south of Madras, and in the neighbourhood of Tanjour. A very inconsiderable force, however, could yet be spared for this purpose, as Hyder Aly, though so often defeated, was still extremely formidable. Sir Hector Munro had the management of the expedition: and so furious was the attack of the British sailors, that the troops left to guard the avenues to the place were defeated at the very first onset. A regular siege ensued: which, however, was of very short duration, a breach being soon made and the garrison surrendering prisoners of war.

136 Dutch settement of egapatam educed.

137 ud likeise Trinomale.

The loss of Negapatam was quickly followed by that of Trincomale in Ceylon. Admiral Hughes, who had conveyed Sir Hector Munro with the land forces to that place, and assisted him with his sailors, immediately after its surrender set sail for Trincomale, where he arrived about the middle of January 1782. The fort of that name was quickly reduced; but the main strength of the settlement consisted of a fort named *Ostenburgh*, the principal place on the island, and by the capture of which the whole settlement would be reduced. This fort stands on a hill which commands the harbour, but is itself overlooked by another hill at the distance of no more than 200 yards. Though the gaining of this post was undoubtedly to be attended with the loss of the fort, it does not appear that the governor even attempted to defend it. A British detachment of sailors and marines therefore took possession of it, when the admiral sent a summons of surrender, representing the inutility of making any farther defence after the loss of such a post; and being extremely desirous of avoiding an effusion of blood, repeated his arguments at several different times. The governor, however, proving obstinate, the place was taken by storm, with the loss of about 60 on the part of the British, and very little on that of the Dutch, the victors giving quarter the moment it was asked. Four hundred Europeans were taken prisoners; a large quantity of ammunition and military stores, with a numerous artillery, were found in the place; and two Indiamen richly laden, with a number of small trading vessels, were taken in the harbour.

A more formidable enemy, however, now made his appearance on the coast of Coromandel. This was Suffrein the French admiral; who setting out from his native country with 11 ships of the line and several stout frigates, had fallen in with the Hannibal of 50 guns, and taken her when separated from her consorts. This ship, along with three others, a 74, a 64, and a 50, had been sent out to the assistance of Sir Edward; and the three last had the good fortune to join him before the arrival of M. de Suffrein. The latter, supposing that he had not yet received this reinforcement, bore down upon the English squadron at Madras, to which place they had sailed immediately after the capture of Trincomale. Perceiving his mistake, however, he instantly bore away. The English admiral pursued, took six vessels, five of them English prizes, and the sixth a valuable transport laden with gunpowder and other military stores, besides having on board a number of land-officers and about 300 regular troops. This brought on an engagement, in which M. Suffrein, perceiving the rear division of the British fleet unable to keep up with the rest, directed his force principally against it. The ships of Admiral Hughes himself and Commodore King sustained the most violent efforts of the French, having mostly two, and sometimes three, vessels to contend with. Thus the commodore's ship was reduced almost to a wreck; but about six in the evening, the wind becoming more favourable to the English, the squadron of the enemy were obliged to draw off. The loss of men on the part of the British amounted to little more than 130 killed and wounded, but that of the French exceeded 250.

138 Admiral Suffrein arrives with a powerful fleet from Europe.

139 Engagement between him and Sir Edward Hughes.

After the battle Sir Edward returned to Madras; but meeting with no intelligence of Suffrein at that place, he made the best of his way for Trincomale, being apprehensive of an attack upon that place, or of the intercepting of a convoy of stores and reinforcements at that time expected from England. Suffrein had indeed got intelligence of this convoy, and was at that time on his way to intercept it. This brought the hostile fleets again in sight of each other: and as the British admiral had been reinforced by two ships of the line, he was now better able to encounter his adversary. A desperate battle ensued, which continued till towards night, when the ships on both sides were so much shattered, that neither could renew the engagement next day.

140 A second battle.

Though these engagements produced nothing decisive, they were nevertheless of the utmost prejudice to the affairs of Hyder Aly, who was thus prevented from receiving the succours he had been promised from France; and he was still farther mortified by the defeat of his forces before Tellicherry, which place he had blocked up since the commencement of hostilities. This last misfortune was the more sensibly felt, as an open passage was now left for the English into those countries best affected to Hyder. His bad success here, however, was in some measure compensated by the entire defeat of a detachment of about 2000 English infantry and 300 cavalry under Colonel Braithwaite, a brave and experienced officer. This detachment,

141 Hyder Aly's forces defeated at Tellichery.

142 Colonel Braithwaite's detachment cut off by Tippoo Saib.

India. ment, consisting of chosen troops from Sir Eyre Coote's army, lay encamped on the banks of the Coleroon, which forms the northern boundary of Tanjour. Tippoo Saib having procured exact intelligence of the situation of this party, formed a design of attacking it while no danger was suspected on account of the distance of Hyder Aly's army. He set out on his design with an army of 15,000 horse and 5000 foot, accompanied by a body of French regulars; and having crossed the Coleroon, suddenly surrounded the British forces on all sides. The colonel, perceiving his danger, formed his men into a square, distributing the artillery to the several fronts, and keeping his cavalry in the centre. In this situation he resisted for three days the utmost efforts of his numerous enemies, always compelling them to retreat with great loss. At last General Lally, rightly conjecturing that the strength of the English must be exhausted and their numbers thinned by such desperate service, proposed that the French infantry, which was fresh and entire, should attack one of the fronts of the square, while the forces of Tippoo should do the same with the other three. This last attack proved successful; the British forces were broken with great slaughter, which however was stopped by the humanity of the French commander; who even obtained from Tippoo Saib the care of the prisoners, and treated them with a tenderness and humanity they certainly would not otherwise have experienced. A number of British officers, however, perished in the engagement, and only one remained unwounded.

143 Cuddalore taken. In the meantime, the succours from France, so long expected by Hyder, made their appearance. As soon as a junction was formed, they proceeded, under the command of M. Duchemin, to invest Cuddalore; which not being in any situation to stand a siege, was surrendered on capitulation. In like manner some other places of smaller consequence were reduced, until at last being joined by Hyder's numerous forces, they determined to lay siege to Vandervash, a place of great importance, and the loss of which would have been extremely detrimental to the English. This quickly brought Sir Eyre Coote with his army to its relief; but Hyder Aly, notwithstanding his being reinforced by the French, durst not yet venture a battle in the open field. On this the British commander proceeded to attack Arnee, the principal depository of Hyder's warlike stores and necessaries. Thus the latter was obliged to quit his advantageous ground; but he did so with such secrecy and speed, that he came upon the British army unawares while preparing for its last march to Arnee, now only five miles distant. Perceiving that the march of the British troops was through low grounds, encompassed on most parts with high hills, he planted his cannon upon the latter; from which he kept a continual and heavy fire on the troops below, while his numerous cavalry attacked them on every side. Notwithstanding all disadvantages, the British commander at last closed in with the enemy; and after an obstinate dispute completely routed them. Neither this, however, nor any other engagement with Hyder Aly, ever proved decisive; for as the want of cavalry prevented the British general from pursuing his advantage, so that of his antagonist was so numerous, that by it he always covered his retreats in such an effectual manner as to lose but few men, and in a short time to be in a condition to act again on the offensive. This was remarkably the case at present; for notwithstanding this defeat, which happened on the 2d of June 1782, he cut off an advanced body of the British army five days after; and harassed the whole in such a manner, that Sir Eyre Coote, notwithstanding his success, was obliged to move nearer Madras; soon after which, he was obliged, on account of his bad state of health, to relinquish the command of the army to General Stuart.

144 Hyder Aly defeated a fifth time by Sir Eyre Coote.

Hyder Aly now perceiving that he was likely to be attended with no success by land, began to rest his hopes on the success of the French by sea. He therefore earnestly requested M. Suffrein, who possessed at that time a decisive superiority in the number of ships, to lose no time in attacking the British squadron before it could be joined by a reinforcement which was then on its way, and was reported to be very formidable. As the French commander was by no means deficient in courage, a third engagement took place on the 5th of July 1783. At this time the British had the advantage of the wind, the battle was much more close, and the victory more plainly on their side. It is said indeed, that had not the wind fortunately shifted in such a manner as to enable the French to disengage their ships, a total and ruinous defeat would have ensued. After the engagement, the French admiral proceeded to Cuddalore, having received intelligence that a large body of French troops in transports had arrived off the island of Ceylon, in company with three ships of the line. As this seemed to afford hopes of retaliation, he used such diligence in refitting his ships, that the fleet was able to put to sea in the beginning of August. His intention was to make an attempt on Trincomale; and so well were his designs conducted, that Sir Edward received no intelligence of the danger, till a British frigate chasing a French one, which took shelter with the squadron at Trincomale, discovered it by this accident, and hastened back with the news to Madras. It was now, however, too late; the place was not in a condition to resist a siege; and the French batteries having silenced those of the fort in two days, a capitulation took place on the last day of August.

145 A third engagement, greatly to the disadvantage of the French.

146 Who nevertheless take Trincomale.

Sir Edward Hughes having been detained by contrary winds, did not arrive at Trincomale before the 2d of September, when he had the mortification to see the forts in the hands of the French, and that Suffrein was in the harbour with 15 sail of the line, while he had only 12. He did not hesitate at venturing an engagement with this inferiority, nor did M. Suffrein decline the combat. The event of the battle was no other than shattering the fleets and killing and wounding a number of men on both sides. In this, however, as well as in the other engagements, the superiority of the English was very manifest; and in entering the harbour of Trincomale the French lost a 74 gun ship.

147 A fourth battle between the French and English fleets.

The loss of Trincomale was severely felt by the English; for while the French lay safely in the harbour refitting their squadron, the English were obliged for that purpose to sail to Madras. Here the fleet was assailed by one of the most dreadful tempests ever known on that coast. Trading vessels to the number of

148 English fleet shattered by a dreadful tempest.

India. of near 100 were wrecked, as well as those for Madras laden with rice, of which there was an extreme scarcity at that place. Thus the scarcity was augmented to a famine, which carried off vast numbers of the inhabitants before supplies could arrive from Bengal. The continuance of the bad weather obliged Sir Edward with his whole squadron to sail to Bombay; and there he did not arrive till towards the end of the year, when his squadron was so much shattered, that, in order to repair it with proper expedition, he was obliged to distribute it between the dock-yards of Bombay and the Portuguese settlement at Goa.

In the meantime Sir Richard Bickerton arrived at Bombay from England with five men of war, having on board 5000 troops, after a very favourable passage; having neither seen nor heard of the bad weather which had desolated the coasts of India. It was likewise the intention of France to signalize the campaign of this year by an immense force both by sea and land in India. Exclusive of the forces already on the coast of Coromandel, they were to be joined by 5000 more, all regulars, from their islands on the African coast. Suffrein was to be reinforced by several ships of the line, when it was hoped that a decided superiority at sea would be obtained over the English; while their superior numbers and artillery on shore would render them invincible by any force that could be brought against them. To oppose these designs, it was deemed necessary by the presidency of Bombay to make a powerful diversion on the coast of Malabar. Here was situated the kingdom of Mysore, the sovereignty of which had been usurped by Hyder Aly under the title of *Dayva*, as that of the Mahrattas was by a person styled *Paishwa*. This kingdom is nearly in the same parallel with Arcot. To the northward is the kingdom of Canara, which is said to have been the favourite possession of Hyder Aly; the name of its capital is Bidnore, which also gives name to an extensive territory, and was by Hyder changed to that of Hydernagur.

149 xpedition Colonel umber- onc. The expedition had been set on foot as early as the end of the year 1781; a strong body of forces under the command of Colonel Humberstone had taken the two cities of Calicut and Panyan, besides others of lesser note, and penetrated into the inland country, which is there difficult and dangerous. Having here made himself master of a place called *Mongarry Cotta*, of which the situation commanded the entrance into the inner parts of the country, he proceeded to attack Palatacherry, a considerable town at some miles distance; but being suddenly environed with a numerous and hostile army, instead of making himself master of the place, it was not without the utmost difficulty that he made his escape after losing all his provisions and baggage. A great army, consisting of 28,000 foot and 10,000 horse, under Tippoo Saib, also advanced against him with such celerity, that the colonel had only time to retreat to Panyan, where he was superseded in the command by Colonel Macleod; and soon after the place was invested by the forces of the enemy, among whom was General Lally with a considerable body of French. Two British frigates, however, having come to the assistance of the place, rendered all the attempts of the enemy to reduce it abortive. At last Tippoo Saib, impatient of delay, made a vigorous effort against the British lines; but though both the Indian and French commanders behaved with great bravery, the attack not only proved unsuccessful, but they were repulsed with such loss as determined Tippoo to abandon the siege of the place, and retire beyond the river of Panyan. India.

150 Unfortunate expedition of General Matthews. As soon as the presidency of Bombay were acquainted with the success of Colonel Humberstone, General Matthews was dispatched to his assistance with a powerful reinforcement. This expedition, which began the campaign of 1783 in the kingdom of Canara, has been related with circumstances so disgraceful, and so exceedingly contrary to the behaviour for which the British troops are remarkable, that we are totally at a loss to account for them. On the one hand, it seems surprising how the national character could be forfeited by a particular body, and not by any other part of the army; and on the other, it seems equally surprising why such calumnies (if we suppose them to be so) should have arisen against this particular body and no other part of the army. Such accounts of it, however, were published as raised the indignation of the military gentlemen, who thought proper to publish a vindication of themselves. In the Annual Registers, from whence, next to the gazettes and newspapers, the generality receive what they look upon to be authentic intelligence, the character of this army is treated with the highest asperity. "In the story of the conquest and recovery of Canara (says the New Annual Register), the Spaniards may be said to be brought a second time upon the scene, but not to sit down in sullen and insolent prosperity after all their crimes. The Spaniards of Britain were overtaken in the midst of their career; and he who is more of a man than an Englishman, will rejoice in the irregular and unmeasured, but at the same time the just and merited, vengeance that was inflicted upon them by the prince whose dominions they were ravaging!" In support of this dreadful exclamation the following account is given of the expedition. It began with the putting in execution a design formed by General Matthews of carrying the war into the heart of Hyder Aly's dominions. For this purpose the English invested the city of Onore, situated about 300 miles to the south of Bombay, and one of the principal places in the country of Canara. "It was taken by assault (says Dr Andrews) with great slaughter, and plundered with circumstances of avarice and rapine that disgraced the victors; among whom, at the same time, great discontents arose concerning the division of the spoil." "No quarter (says the Annual Register) was given by the victorious English; every man they met was put to the sword. Upon this occasion we beg leave to transcribe three lines from the private letter of one of the officers concerned in the expedition. 'The carnage (says he) was great: we trampled thick on the bodies that were strewed in the way. It was rather shocking to humanity; but such are only secondary considerations, and to a soldier, whose bosom glows with heroic glory, they are thought only accidents of course; his zeal makes him aspire after farther victory.' This part of the peninsula had hitherto been untouched by the barbarous and unsparing hands of Europeans, and of consequence was full of riches and splendour. In the fortress of Onore were found sums of money to an unknown amount, besides jewels and

151 The army charged with great cruelty in this expedition.

India. diamonds. A considerable part of this appears to have been secured as private plunder by General Matthews. The complaints of the military were loud; they thought, and naturally, that the acquisition of riches was the fair and reasonable consequence of the perpetration of bloodshed. But their commander turned a deaf ear to their representations; and hastened, by adding new laurels to his fame, to hide the slander that might otherwise rest upon him."

From Onore the army proceeded to the nearest fortresses on the sea-coast, Inore and Cundapour. Here they were joined by a reinforcement from Bombay, under the command of Colonels Macleod and Humberstone, with positive orders to proceed for Bidnore or Hydernagur the capital of Canara. On this General Matthews marched for the mountains called the *Ghauts*, where there is a pass three miles in length, though only eight feet wide, and which was then strongly fortified, and defended by a vast number of the natives. "The English (say our authors), however, had already obtained a considerable reputation by their executions; ang the use of the bayonet, the most fatal instrument of war, and which was employed by them on all occasions, created such an extreme terror in the enemy, as to enable them to surmount this otherwise impregnable defile."

The gaining of this pass laid open the way to Bidnore the capital, to which a summons was now sent. An answer was returned, that the place was ready to submit, provided the inhabitants were not molested, and the governor was permitted to secure his property. The wealth of this city was undoubtedly great, but the estimates of its amount are very different. By the accounts of Bombay it was stated only at 175,000l.; while the officers concerned in the expedition say that it was not less than 1,200,000l. or even 1,920,000l.; and even this was only public property; that seized upon by the soldiers, and which belonged to private persons, was undoubtedly very considerable also.

This treasure was at first shown by the general to his officers, and declared to belong to the army; but he afterwards told them that it was all the property of the Mohammedan governor, and had been secured to him by the terms of the surrender. It was therefore sent to Cundapour, under the convoy of Licutenant Matthews, brother to the general, to be thence transmitted to Bombay; but whether any part of it ever reached that settlement or not was never known. The discontents of the army were now carried to the utmost height; and the contest became so serious, that Colonels Macleod, Humberstone, and Shaw, quitted the service all together, and returned to Bombay. The officers charged their general with the most insatiable and shameful avarice; while he, in return, accused his whole army of doing every thing disrespectful and injurious to him; of paying no regard to order and discipline, and of becoming loose and unfeeling as the most licentious freebooters.

From Bidnore detachments were sent to reduce several fortresses, the principal of which was Anaupour or Anantpure. Here orders were issued for a storm and no quarter. Every man in the place was put to death, except one horseman, who made his escape after being wounded in three places. "The women, unwilling to be separated from their relations, or exposed to the brutal licentiousness of the soldiery, threw themselves in multitudes into the moats with which the fort was surrounded. Four hundred beautiful women pierced with the bayonet, and expiring in one another's arms, were in this situation treated by the British with every kind of outrage." India.

This exploit was succeeded by the reduction of Carwa and Mangalore, which completed the reduction of Canara, when General Matthews put his army in cantonments for the rainy season.

This rapid success was owing to the death of Hyder Aly, which happened in the end of the year 1782. His son Tippoo Saib, however, having taken possession of the government, and settled his affairs as well as time would allow, instantly resumed his military operations. On the 7th of April 1783 he made his appearance before Bidnore, so that General Matthews had scarce time to collect a force of 2000 men, and to write to Bombay for a reinforcement. But, however necessary the latter must have been in his circumstances, the presidency were so much influenced against him by the unfavourable reports of his officers, that they suspended him from his commission, appointing Colonel Macleod to succeed to the command of the army.

Tippoo Saib now advanced with a vast army, supposed not to be fewer than 150,000 men, covering the hills on each side of the metropolis as far as the eye could reach. The army of General Matthews, altogether unable to cope with such a force, was quickly driven from the town, and forced to take refuge in the citadel. Tippoo having cut off their retreat by gaining possession of the Ghauts, laid close siege to the fortress; which in less than a fortnight was obliged to capitulate. The terms proposed were, that all public property should remain in the fort; that the English should engage not to act against Tippoo for a stipulated time; that they should march out with the honours of war; that they should pile their arms, and have full liberty to proceed unmolested with their private property to the sea-coast, from thence to embark for Bombay; and in this capitulation the garrisons of Anaupour, and other inland fortresses, were also included.

All these terms were broken by Tippoo, who said that they had forfeited their title to liberty by a breach of the articles of capitulation, in embezzling and secreting the public money, which was all in good faith to be delivered up. That this was really the case seems to be universally acknowledged. In the Annual Register we are told, that "to prevent too much money being found in the possession of one man, the general ordered his officers to draw on the paymaster-general for whatever sums they wanted. When the fort was surrendered to the sultan, there was not a single rupee found in it." By this circumstance the fate of the garrison was decided. General Matthews was sent for next morning to a conference. He was not, however, admitted to his presence, but immediately thrown into chains. Most of the other principal officers were, on various pretences, separated from the army. The general and his companions were conducted to Seringapatam the capital of Mysore; and after having experienced a variety of severities, were at last put to death by poison. In this manner the general and 20 officers perished.

India. perished. The poison administered was the milk of the cocoa-tree, which is said to be very deadly.

The above account was repeatedly complained of as partial, and at last openly contradicted in a pamphlet entitled "A Vindication of the Conduct of the English Forces" employed in that expedition, and published by order of the East India Company. In this pamphlet the circumstance most found fault with was that regarding the women at Anantpore, which was positively contradicted. On this account, therefore, the publishers of the above-mentioned work retract that part of their narrative, as being founded in misrepresentation. Notwithstanding this vindication, however, they still draw the following conclusions. "It is already sufficiently evident, how little has been effected by this vindication of the Bombay officers. The great outlines of the expedition remain unaltered. It is still true that a remarkable degree of severity was employed in the field; that, in the capture of the fortresses of Canara, the principle of a storm and no quarter was very frequently applied; and that the acquisition of money was too much the governing object in every stage of the undertaking. The vindication of the officers has therefore done them little service; and it happens here, as it generally does in the case of an imperfect reply, that the majority of the facts are rather strengthened and demonstrated by the attempt to refute them. With respect to the conclusion of the story, the treasures of Hydernagur, and the charge brought against them by Tippoo, that they had broken the terms of the capitulation, and that when the fort was surrendered not a rupee was to be found in it; these circumstances are passed over by the officers in the profoundest silence. It was this that roused the sultan to vengeance; and it is to this that he appeals for his justification in disregarding a capitulation which had been first dissolved by the vanquished English."

The vindication above alluded to was signed by one major and 52 subaltern officers. It seems not, however, to have given entire satisfaction to the military gentlemen themselves, as other vindications have appeared, said to be written by officers; but these being anonymous, can be supposed to add very little weight to that already mentioned, where such a respectable body have signed their names. We shall therefore drop a subject so disagreeable, and the investigation of which at the same time is entirely foreign to the plan of this work.

It now remains to give some account of the war with the Mahrattas, begun, as was formerly hinted, on account of the protection afforded to the assassin Ragonaut-row. This man had formerly obliged the Mogul to take shelter in the English factory at Bengal; but being unable to keep up his credit among his countrymen, was expelled as already related. On his arrival at Bombay, an alliance was formed betwixt him and the English government; by which the latter engaged to replace him in the Mahratta regency in consideration of some valuable cessions of territory. The supreme council of Bengal, however, disowned this treaty, and concluded one with the Mahrattas in the month of March 1776; by which it was agreed that they should provide for Ragobah's subsistence according to his rank, on condition of his residing in their country.

152 Account of the Mahratta war.

This being not at all agreeable to Ragobah, he fled once more to Bombay, where a new confederacy was entered into for his restoration. The council of Bengal approved of this on account of the approaching rupture with France; and in consequence of this, a detachment was, in February 1778, ordered to march across the continent of India. By some mismanagement in this expedition, the whole army was obliged to capitulate with the Mahratta general on the 9th of January 1779. One of the terms of the capitulation was, that a body of troops which were advancing on the other side should be obliged to return to Bengal. But General Goddard, the commander of these forces, denying the right of the council of Bengal to remand him, proceeded on his march, and arrived on the 18th of February. Here he received orders to conclude a new treaty, if it could be obtained on easier terms than that of the capitulation, by which it had been engaged to cede all our acquisitions in the country of the Mahrattas.

Such extreme disregard to any stipulations that could be made, undoubtedly provoked the Mahrattas, and induced them to join in the confederacy with Hyder Aly already mentioned. The war, however, was successfully begun by General Goddard in January 1780. In three months he reduced the whole province of Guzerat. Madajee Scindia the Mahratta general advanced to oppose him; but as he did not choose to venture a battle, the English general stormed his camp, and totally routed him. Other exploits were performed in the course of this campaign; during which the governor-general (Mr Hastings) seeing no hopes of an accommodation, entered into a treaty with the rajah of Gohud, and with his consent Major Popham reduced a fortress in his dominions named *Gualliar*, garrisoned by the Mahrattas, and hitherto reckoned impregnable.

These successes were followed by the dreadful incursions of Hyder Aly already related, which put a stop to the conquests of General Goddard; all the forces he could spare being required to assist the army under Sir Eyre Coote. The last exploit of General Goddard was the reduction of the island of Salsette, and of a strong fortress named *Bassein* in its neighbourhood. The army of Scindia, consisting of 30,000 men, was also defeated this year by Colonel Caruac; and the Mahrattas, disheartened by their losses, consented to a separate peace with the English, leaving Hyder Aly to manage the war as he thought proper.

In the mean time, however, the expences incurred by these wars were so high, that Mr Hastings, who was obliged to furnish them some how or other, was reduced to the greatest difficulties. For this purpose not only all the treasure of Bengal was exhausted, but it was found necessary to draw extraordinary contributions from the British allies, which was productive of many disagreeable circumstances. One of the most remarkable was the revolt of Benares. The rajah of this country had formerly put himself under the protection of the English, who on their part agreed to secure his dominions to him on condition of his paying an annual subsidy to the nabob of Oude. In 1770 the rajah died, and was succeeded by his son Cheit Sing, who held the sovereignty at the time we speak of. On the death of the nabob in 1775, a new treaty was made with his

153 Revolt of Benares.

successor,

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successor, by which the sovereignty of Benares was transferred to the East India Company, an acquisition equivalent to 240,000l. per annum; at the same time that the subsidy paid by Sujah Dowla, and which, by Lord Clive, had been fixed at 36,000l. and afterwards raised to 252,000, was now augmented to 312,000l. per annum.

On receiving intelligence in July 1778, that war had actually commenced between France and England, Cheit Sing was required to pay 50,000l. as his share of the public burdens. Such a demand was paid with extreme reluctance on the part of a prince who already contributed 240,000l. and probably thought that an abundant equivalent for the protection enjoyed. The same requisition, however, was made the two succeeding years, but with a promise that the demand should cease when peace was restored. Instead of any present alleviation, however, a body of troops was also quartered upon him, and he was likewise obliged to pay for their maintenance, lest he should not voluntarily pay the additional 50,000l. In November 1780, in addition to all these demands, he was also required to send into the field such a body of horse as he could spare; but this requisition, owing to some misunderstanding, was never complied with.

154 Cheit Sing arrested and deposed.

In July 1781 Mr Hastings having, it is said, received some intelligence that the oppressed rajah meditated rebellion, set out on a visit to the nabob of Oude, and in his way proposed to clear up the misunderstanding with him. The method by which he intended to clear up this misunderstanding was to lay a fine upon the poor prince of 400,000l. or 500,000l.; and as a reason for doing so, it was alleged that the late rajah had left a million sterling in his treasury; a sum which was continually increasing. Cheit Sing advanced to the borders of his territories to meet the governor-general, behaved with all imaginable submission; and having got private intelligence of what was meditated against him, offered to pay down 200,000l. This was refused; and the governor-general having reached the capital, forbade the rajah his presence, and by a letter acquainted him with his causes of complaint. Cheit Sing sent a very submissive answer; but as he endeavoured to exculpate himself, Mr Hastings was so far from being satisfied, that he put the prince under an arrest.

Such an unheard-of proceeding excited the utmost surprise and resentment in subjects accustomed to regard their sovereign with a degree of reverence little short of adoration. On the very day of the arrest they assembled tumultuously, cut in pieces the guard which had been set on the palace, and carried off their prince in triumph, It does not appear, however, that this was any other than a transitory tumult: for though they could easily have cut off the governor-general, they made no attempt against him. Cheit Sing protested his innocence, and made the most unlimited offers of submission, but all in vain. His government was declared vacant, and the zemindary bestowed on the next heir; the annual subsidy to the government of Bengal was augmented from 240,000l. to 400,000l. annually. The miserable rajah was forced to fly his country; and his mother, though promised leave to retire upon conditions, was attacked in her retreat and plundered by the soldiers. After all his endeavours to procure money, however, Mr Hastings found this adventure turn out much less profitable than he had expected; for the treasury of the fugitive prince was seized and retained by the soldiery.

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155 New treaties with the nabob of Oude.

As to the nabob of Oude, a new treaty was concluded with him; the design of which was evidently to ease him of some of the burdens to which he was at that time subjected. Part of the British troops were therefore withdrawn from his dominions. As Fizulla Khan, the most prosperous of his dependents, had been called upon to furnish a body of 5000 horse to join the nabob's army, and had not complied with the requisition, the guarantee of his treaty with the nabob, formerly executed, was withdrawn; but it being afterwards discovered that his territory was not equivalent to the claims of the governor, the treaty was renewed on payment of a slight fine. As the widow of Sujah Dowla was suspected of favouring the late rajah Cheit Sing, the reigning prince was allowed to reclaim the treasures of his father in her possession, on condition of paying her a certain stipulated allowance annually. The treasures were seized as payment of the debts of the prince to the company.

Hostilities continued in India between the French and English till the year 1783 was far advanced, and long after tranquillity had been restored to other parts of the world. In the beginning of the season for action the governor and council of Bengal determined to send an ample supply to the presidency of Madras, that they might be enabled to put an end to the war, which Tippoo seemed willing to prosecute with even more vigour than his father had done. For this purpose Sir Eyre Coote, who, for his health, had gone to Bengal by sea, set sail once more for Madras, being intrusted with a large sum of money for the necessary expences of the war. In his passage he was chased for forty-eight hours by two French men of war. The solicitude and fatigue he underwent during this time, being almost constantly upon deck, occasioned a relapse, so that he died in two days after his arrival at Madras. His death was greatly lamented, as the greatest expectations had been formed of a happy conclusion being put to the war by his extraordinary military talents, for which he had already acquired so great a reputation in India.

The invasion of Tippoo's dominions having called him off from the Carnatic, General Stuart took the opportunity of attacking him in another quarter. Colonel Fullarton was despatched with a large body of troops to invade the province of Coimbatour. This he executed with great success; overrunning the country, taking several fortresses, and making a very alarming diversion on this side of Tippoo's dominions. General Stuart, however, having still greater designs in view, was obliged to recal this gentleman in the midst of his success. The siege of the strong fortress of Cuddalore was the operation which now engaged his attention. It was now become the principal place of arms belonging to the French; was strongly fortified, and garrisoned by a numerous body of the best troops in France, as well as a considerable number of Tippoo's choicest forces. The siege therefore proved so difficult, that though the English displayed the utmost valour and military skill, they were not able to reduce the place until hostilities were interrupted by the news of a general pacification having taken place in Europe. In this

156 Cuddalore unsuccessfully besieged by the English.

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this siege a remarkable circumstance took place, viz. that of a corps of Sepoy grenadiers encountering and overcoming the French troops opposed to them with fixed bayonets. For this remarkable instance of valour, they not only received the highest applause at the time, but provision was made for themselves and families by the presidencies to which they belonged.

After the reduction of Hydernagur, and the destruction of the army under General Matthews, the English possessed only three places of consequence in the kingdom of Canara. These were Mangalore, Onore, and Carwa. The siege of all these places was undertaken at once. Mangalore, the principal port in the country, was defended by a very numerous garrison under Major Campbell. Tippoo sat down before it on the 19th of May; and the attack and defence were both conducted with the greatest spirit and activity. Notwithstanding the utmost efforts of the besiegers, however, and that the garrison were reduced to the last extremity for want of provisions, they held out in spite of every difficulty, until the general pacification being concluded, the place was afterwards delivered up. In other parts nothing more happened than an indecisive engagement between M. Suffrein and Admiral Hughes; so that the British empire in Bengal was for that time fully established, and continued unmolested by foreign enemies, till the ambition of Tippoo Saib again prompted him to invade the territories of the nabob, an ally of Britain. This again brought on a war with that restless, but able prince; in this war the British were joined by the Mahrattas, and the conduct of it was entrusted to Lord Cornwallis.

157 Character of Hyder Aly,

Among the various usurpers who suddenly rose to the rank of sovereign princes on the fall of the Mogul empire, Hyder Aly was the most successful. A master in dissimulation and treachery, he laboured, while in a humble station, to acquire the confidence of his superiors, that he might the more completely betray them. These qualities, so necessary to a successful usurper, were in time accompanied with considerable military skill, and great talents for government. Hence the power which he at first so treacherously obtained, was soon augmented by fresh acquisitions; and the territories which he conquered were governed with a systematic arrangement and rigorous justice, which speedily augmented their population, and increased his own resources.

158 and of Tippoo Sultan.

His son, Tippoo Sultan, though far inferior to his father in the art of government, in moderation, and in the general steadiness of his character, was, however, distinguished in India as an excellent officer and intrepid warrior; qualities which effectually secured him the confidence of his troops. The operation of the system established by his father, and the warlike complexion of his own character, continued to support the general prosperity of his dominions, which were enlarged on all sides by conquests from his neighbours, and were strengthened by a great number of the most impregnable fortresses in the peninsula.

Hence the power of the Mysorean kings, which in its rise had been often combated, and sometimes defeated by the Mahrattas, at last acquired a decided ascendency in the south of India. The discipline and fidelity of their troops, till their late aggressions on the British, had constantly been increasing in reputation; and fully evinced the excellent regulations which had been established for the army. The government of both princes was strict; that of the last, violent and arbitrary. It was still, however, the despotism of an able and warlike sovereign, who may rigorously check, but does not destroy those subjects which must form the means of his future aggrandisement.

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From these causes the extensive territory of the Mysore and its dependencies had not, in the course of many years, suffered materially, either from insurrection or external invasion;—a felicity but rarely experienced in any quarter of India. When they were invaded by the British and their allies, under the conduct of Lord Cornwallis, the whole country was found in a high state of cultivation, and filled with inhabitants. The regular army consisted of 70,000 men; and the troops employed in the garrisons, in the police, and in the collection of revenue, amounted, by the most authentic accounts, to twice that number. This vast establishment was so completely furnished with artillery in the numerous forts, and in the field, that upwards of 400 cannon were found in the outworks of the capital alone. The most frequent bar to the efficiency of native armies, is the want of regular pay: an obstacle the provident sultan had removed by gradually amassing vast treasures, which he secured in the forts, or in the capital; and by improving his revenue, which amounted annually to upwards of three millions sterling.

The power and resources of the Mysorean dominions, thus formidable in themselves, cannot be fairly estimated, unless we take into account their advantageous position and the character of the sovereign. Lying in the heart of the Deccan, and strengthened by innumerable forts, they command the adjoining frontiers of all their neighbours; while the restless and enterprising spirit of the prince has long obliged all around him to keep in a state of constant military preparation, to them nearly as expensive as that of actual war. Few years were suffered to elapse, in which their territories were not either menaced or actually invaded. The open and defenceless frontier of the Carnatic was frequently the object of these incursions; and the territory of our ally, the nabob of Arcot, had often suffered devastations that are still remembered with horror. The British, who were bound by treaty to be the protectors of this prince, had their own territories plundered extensively; and, on one occasion, had been forced to submit to an ignominious peace, which was dictated to them at the gates of Madras.

159 Influence of the French over the latter.

The French officers in India, many of whom had long been entertained in the service of Tippoo, had communicated to his policy that marked hostility against the British nation, by which it was so peculiarly distinguished. A splendid embassy, which had been dispatched to France, returned previous to 1789, before the breaking out of the late war; which must be regarded as the commencement of a regular system of hostility for the entire overthrow of the British power in the east.

Although the events of the French revolution operated to divert their attention from prosecuting the objects of this new alliance, the power of Tippoo had become so formidable to the British government, that the revenues of Madras and Bombay were inadequate to support the forces necessary for their defence. Large supplies

India. supplies both of troops and money were required from Europe; and experience had fully proved, that unless the power of the kings of Mysore was reduced, the British possessions in the east could not be retained without incurring an annual loss to the state.

Happily the power, talents, and ambition of the present sultan were fully known to the whole of India. His views of universal conquest had alarmed all the native powers of the peninsula; and both the Nizam and the Mahrattas were roused to combine for their own defence. Tippoo was the first Mohammedan prince, since the establishment of the Mogul empire, who openly disclaimed the authority of the king of Delhi, or Great Mogul. He was the first also to impress coin with his own titles; a mark of disrespect which none of the native governments had ever shewn. The great seal which he adopted soon after his father's death, and which he affixed to all his public deeds, declared him to be "the messenger of the true faith," and announced his ambition to appear as a prophet as well as conqueror. In the spirit of eastern vanity, he not only declared himself the greatest king on earth, but announced himself to be the restorer of the Mohammedan faith; and to avail himself of the enthusiasm of his sect, he invites all true Mussulmans to join his standard, and not only drive the European infidels out of India, but to establish the empire of Mohammed over the world.

159 His excessive ambition unites different states against him.

An ambition so openly avowed, and to an extent so inordinate, created immediate alarm among the native powers of India. It rendered an union peculiarly necessary between the Nizam and the Mahrattas; states who differed in religion, in government, and in every point of interest, except that fear, which combined them against this powerful adversary, who was ever ready to attack them, and who, in fact, already commanded their southern frontier.

The policy of the British, who had earlier foreseen the danger, led them to adopt a still more vigorous preparation than the native powers. Four additional regiments had been raised in Europe, and sent to India under General Abercromby and Colonel Musgrave; and as early as 1788, there were in that country thirteen European battalions, consisting of 8000 men, besides the troops in the company's establishment. Earl Cornwallis, and several of the first officers in the British service, were appointed to command them, under a new system, by which the powers of the governor-general and commander in chief were united in the same person. Thus the counteraction of different authorities was avoided, and every advantage secured which might give efficiency to the operations of warfare.

Happily for the execution of those views of defence, the climate of the Mysore, like all the central parts of the peninsula of India, is temperate and healthy, in a degree superior to that of any other region of the globe lying within the tropics. The monsoons which deluge the coasts of Malabar and Coromandel, have their force broken as they approach the high mountains of the interior, where they fall out in showers, which, though heavy, are not commonly of long continuance. The verdure of the country is thus preserved; and the temperature of the climate is moderated throughout almost the whole year. The British army was therefore able to remain constantly in the field, during the whole war; India. and although they did not enter into cantonments, or leave their tents, yet the health of the troops did not materially suffer.

161 Operations of the British against Tippoo.

The military operations against Tippoo may therefore be divided into campaigns, not so much from the change of season, as from the success or failure of the several plans of attack that were carried on against that prince. The first campaign commenced in the month of June 1790, and was directed to the southern part of the peninsula, with a view to relieve the rajah of Travancore, whose country had already been attacked by the sultan. During it, the main army was commanded by General Meadows; and before the end of the year, it effected the reduction of his rich provinces below the mountains; while the Bombay troops, under General Abercromby, conquered the valuable districts below the Ghauts on the west and north, as far as the river Baliapatam.

The second campaign was carried on by Earl Cornwallis in the heart of Tippoo's dominions. Though unsuccessful in effecting its ultimate object, it was distinguished by the capture of the important fortress of Bangalore in the interior of the country; an event which fixed the seat of war in the enemies territory, and was decisive of its final success. A successful battle was also fought in the vicinity of Seringapatam; and a demonstration made against that capital, which, from the advanced season and the swelling of the Cavery, proved abortive.

The last failure, which must in part be ascribed to the delay of the Mahratta armies, and the want of provisions, was speedily followed by the arrival of these allies, and by preparations for a fresh campaign. As these new efforts completely humbled the sultan, and produced a successful termination of hostilities, it is necessary to detail them more particularly.

The season of the year, which, after the battle in 1791, prevented an immediate attack of Seringapatam, was also unfavourable to the numerous draught cattle belonging to the army. They were infected with an epidemic disorder, which was aggravated by famine, and killed them in vast numbers; while the remainder, from disease and hunger, became unfit for service. Meanwhile the scarcity of grain, of arrack, and every article of subsistence, daily increased; this scarcity became at last so urgent that the camp followers, which in India are four times as numerous as the fighting men, were reduced to the necessity of devouring the putrid flesh of the dead bullocks; and to add to all these calamities, the smallpox unfortunately raged in the camp.

Similar distresses were suffered by the Bombay army, who, with infinite labour, had dragged their artillery for 50 miles through the most steep and difficult passes, in order to co-operate with Lord Cornwallis. Unable to form a junction, from the swelling of the Cavery, and the badness of the roads, they were compelled to retrace their steps over those vast woody mountains, which form the immense and impregnable barrier between the kingdom of Mysore and the Malabar coast. In this perilous retreat, the battering train of both armies was unavoidably lost, being too unwieldy to be moved by the small portion of draught cattle which now survived; upwards of 40,000 had already perished since the commencement of the campaign.

Disappointed

India.

Disappointed of the relief and assistance which the junction of the Bombay troops might have afforded, the position of the main army became a scene of the greatest distress. The tents and clothing of the troops, as well as their provisions, were nearly worn out. Great part of the horses of the cavalry were so far reduced by want and fatigue, that they were unable to carry their riders. The ground at Caniambaddy, where it had encamped for a few days to favour the junction, or to protect the retreat, of General Abercromby, was covered to an extent of several miles, with the carcases of the cattle and horses; and the last sight of the gun carriages, carts, and stores of the battering train, left in flames, was the melancholy spectacle which the troops beheld, as they passed along, on quitting this deadly camp.

162 Distress of the army.

Fortunately for them in this dreadful situation, they were met, before they had finished the first day's march, by the allied force of the Mahrattas, under Purseram Bow and Hurry Punt. Every despatch sent to these chiefs had been intercepted by the vigilance of the enemy. They were astonished when they learned the disasters which had been occasioned by their delay: their arrival, which evinced their sincerity in the cause, produced general satisfaction in the British camp, and a conviction, that the ruin of the sultan, though delayed, must now become certain and inevitable. Tippoo himself, on seeing his enemies firm and active in their union, was not insensible to the dangers that awaited him. Before the allied armies left the vicinity of his capital to forward their preparations for a new campaign, he made overtures to Lord Cornwallis for the conclusion of a peace; but that nobleman would listen to no terms of accommodation in which his allies were not included, and which were not preceded by the release of all the prisoners that had been detained during the present and former wars.

163 Junction with the Mahrattas.

The arrival of the Mahratta troops, amounting to 32,000 cavalry, however fortunate it might be deemed at the critical moment in which it happened, brought little additional effective strength to the allied army. Their battalions were unwieldy, irregular, and ill-disciplined: their force had declined as much as Tippoo's had advanced in improvement; and they were at present far inferior to those troops who, under Madha Row, had defeated Hyder Aly in 1772. Their chiefs were, however, overjoyed that they had effected a junction nearly on the spot where that signal victory had been obtained. They were pleased at having met the British army without having occasion to try their strength singly with Tippoo, of whose discipline and abilities in the field they entertained a deep apprehension.

To avoid confusion and interference, they were encamped at a distance from the British troops. Their ground, from the number of followers, and their families, had the appearance of a large town, or of a whole nation emigrating from its territory. The tents of the chiefs are placed around their general's, without any regularity or order. They are of all dimensions, and of every variety of colour, resembling houses rather than canvas. The streets, winding and crossing in every direction, present the appearance of a great fair; in which smiths, jewellers, merchants, and mechanics, are displaying their wares, and as busily employed in their trades, as if they lived in their own capital, and enjoyed a profound peace *.

164 Appearance of their camp.

The state of their artillery, upon which modern warfare so much depends, will at once demonstrate the imperfection of the military system among the Mahratta states. In the construction of their gun carriages, they make little use of iron, but for their strength they trust to the bulk and solidity of the timber: Hence they are unwieldy from their weight, and clumsy beyond all belief; the wheels, in particular, are heavy and low, being formed of large solid pieces of wood united together. The guns themselves are ponderous in the extreme, and of the most irregular dimensions; each is painted in a fantastic manner, and bears the name of some one of their gods. Not a few are dragged after the army long after they have ceased to be serviceable, from the great estimation they are held in, on account of past achievements which they are supposed to have performed for the state. Some of these useless impediments of a march are dragged along at the immense expence of 100, and sometimes 150 draught cattle yoked in pairs. The most insurmountable obstacle to the efficiency of the Mahratta artillery, was the scarcity of ammunition with which they were provided at this period; subsequent improvements have enlarged this supply, and rendered them far more formidable to their enemies.

165 and state of their military system.

The infantry of this nation holds a rank, if possible, still more contemptible than their artillery. Its officers are half-cast Portuguese or French; and the privates consist of outcasts of every description, who are uniform in nothing but in the wretched condition of their muskets, ammunition, and accoutrements. The Mahrattas themselves hold them in contempt, ride through them on the march, without ceremony, or even the appearance of respect. If there happen to be a few Europeans among the officers and men, which in these times was but seldom the case, they execrate the service, and till they find an opportunity of escape, continue to deplore their fate.

The cavalry is the favourite portion of a Mahratta army; and it is to his horses, and the bazars, that the attention of every chief is almost solely directed. On marching days, the baggage and infantry move off at daybreak, while the chiefs and their principal followers remain upon the ground smoking their hookahs till they have advanced some miles; they then follow, each pursuing his own route, attended by his principal people; while the inferior ranks disperse over the country to plunder and forage in every direction.

166 Troops of the Nizam join the British.

The troops of the Nizam at this period joined Lord Cornwallis and the Mahrattas; their state of equipment and discipline was almost in every respect as wretched as that of the Mahrattas. Their forces, when united, amounted to about 80,000 men; and if to these be added four times the number of camp-followers, brinjarries, and the carriage department, the number of strangers to be subsisted in the Mysore alone, cannot be much less than half a million. That no distrust, jealousy, or counteraction, should have disturbed the combined operations of such an immense multitude, must be ascribed to the unexampled moderation and vigilant conduct of the commander in chief. Such a vast army had never taken the field in India in the British cause;

India.

* Vide *Narrative of the Campaign in India in 1792, by General Dirom.*

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cause; yet no murmurs, or even the slightest appearance of distrust, were ever manifested by the allies towards the British commander. They submitted with implicit confidence not only to his arrangements in carrying on the war; but, which was little to be expected among allies so much alive to their particular interests, they acquiesced in his distribution of the conquered territories with a deference which evinced the most perfect confidence in his liberality and justice.

The steady co-operation, however, of any native power with the British army in the field, is a circumstance hardly to be looked for, and must therefore prove a resource on which no commander would choose to rely. His patience will often be severely tried by their irregularities and delays; and in the most critical emergencies his views may be frustrated by their want of punctuality, or by a total failure in their engagements. Even in the article of provisions, the presence of the native armies, bating the temporary relief at their first junction, proved a much greater annoyance than a benefit; for it increased the number of mouths to be supplied, in a country desolated by its friends as well as by the hostile armies.

167 The combined army moves forward.

With these coadjutors, Lord Cornwallis set out in the month of June, towards Bangalore. He determined on a new and circuitous route, northward by Naggemungulum, that he might accomplish some of the important objects necessary to enable the confederates to commence another campaign. He had to enable the Mahrattas to withdraw the posts which they had left on their march, when they advanced from Poonah towards Seringapatam. He had to confine the sultan to as small a portion of his territory as practicable, and thus to oblige him to consume the provisions which he had laid up for the defence of his capital: and, lastly, he had to gain time for collecting and bringing forward the vast stores of camp equipage, provisions, and supplies, which he had ordered for the succeeding campaign.

In order to facilitate the communication between the Mysore and the Carnatic, from which the supplies were chiefly to be drawn; the various hill forts, which command the different passes, were to be reduced. Many of these fortresses, from their situation upon high and precipitous rocks, are of such strength that they have always been deemed impregnable by the native armies of India. In ancient times they formed the inaccessible retreats of the rajahs who still retained their independence; and it was not till the vigorous administration of Tippoo and his father, that they were brought into subjection and garrisoned by the Mysorean troops.

Among these forts, Savendroog, Chittledroog, and Kistnaghury, are the most remarkable in point of natural strength. The first of these consists of a vast mountainous rock, which rises above half a mile in perpendicular height above its own base, which covers a space of eight or ten miles in circumference. This rock is surrounded by walls on every side, and defended by cross barriers wherever it was deemed accessible. Towards the upper part, the immense pile is almost precipitous, and has the farther advantage of being divided on the top into two hills, which have each their defences, and are capable of being maintained independent of the garrison in the lower works.

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To the siege of this tremendous fortress, Lieutenant-colonel Stewart commanding the right wing of the main army was appointed. The attempt commenced on the 10th of December, when this officer pitched his camp within three miles of the north side of the rock. The formidable appearance of the place itself, had withdrawn the attention of the troops from a circumstance which proved on trial the chief obstacle to the execution of their arduous attempt. It consisted in the formation of a gun road from the camp to the foot of the mountain. This was found a work of incredible labour, since it led through a long tract of rocky hills, thickly planted with bamboos; and after every effort, the battering guns were still to be dragged over rocks of considerable height, and of an ascent almost perpendicular.

168 Savendroog besieged.

This celebrated rock, so difficult of approach, and of such immense strength, is no less famed for a noxious atmosphere, occasioned by the hills and immense tracts of wood by which it is surrounded; the appellation of *Savendroog*, or *Rock of death*, is said to have been given it from the noxious and fatal nature of its climate. Tippoo Sultan, sensible of all its advantages, congratulated his army on the infatuation of the British, which had at last led them to an enterprise which would speedily operate their disgrace, and terminate in their ruin. One half of the Europeans, he asserted, would be destroyed by disease, and the other half he was confident would be killed in the assault. The garrison which Tippoo had selected for the station of Savendroog were of the same sentiments with their master: regarding the attempt to reduce it as madness, they fortunately trusted more to its strength, than to their own exertions for its defence; and hence, little or no opposition was made to the erection of our batteries, farther than the ill-directed fire of their artillery produced.

In three days, during which it was found necessary to advance the batteries nearer to the wall, a practicable breach was effected, and a lodgement made for the troops within twenty yards of the breach. The storming party, which consisted chiefly of Europeans, was led by Lieutenant-colonel Nisbet, and was divided into four different parties of attack, in order to secure both hills into which the mountain was divided, and to distract the attention of the enemy. Each party succeeded in gaining its object; for a large body of the enemy who were seen in the morning coming down for the defence of the breach, on observing the Europeans advancing to the storm, was seized with a panic, and fled. The eastern hill immediately above the breach, was carried by Captain Gage, without meeting, or even overtaking, the enemy; the main body of which endeavoured to gain the western hill, and, had they effected their object, the siege must have recommenced. Happily, however, the pathway leading from the breach to this hill is so steep and narrow that the fugitives impeded each other, and the assailants pressed them so hard, that they entered the different batteries along with the enemy. In these numbers were killed, among whom was the second killadar; and the citadel on the summit of the hill was at last gained, where the first killadar was made prisoner. So close and critical was the pursuit

169 and taken.

on

on this fortunate occasion, that a serjeant of the 71st regiment, when at some distance, shot the man who was in the act of shutting the first gate; and upon this occurrence, almost accidental, the fate of the citadel hinged. It was instantly taken, without the loss of a single man; although a hundred of the enemy had been killed during the advance, and many had perished by falling from the precipices in endeavouring to escape. Only one private soldier was wounded in this remarkable assault of the impregnable fortress of Savendroog: it formed a display of successful prowess, fortunate almost beyond example; and it exhibited before the enemy, in open day, an instance of intrepidity, of high valne to the reputation of the army and the interests of the India government.

The beneficial consequences of this important capture, were sensibly felt at the different forts, almost impregnable, by which this part of the country is so remarkably strengthened. Colonel Stewart's detachment, which had been so much distinguished by this achievement, marched in two days against Outredroog, another fortress strengthened by five different walls, and so steep as to prove tenable by a handful of men against the largest army. After the refusal of a summons to surrender, the lower fort was escaladed with such rapidity, that the killadar requested a parley. While this was in agitation, an appearance of treachery was discovered in the upper fort, where the garrison were seen moving and pointing their guns against the assailants. Fired at this sight, Lieutenant M'Innes led on the storming party with impetuosity; some of the gates were instantly broken, others were escaladed, till five or six differents walls on the face of the steep rock were passed, when the troops gained the summit, and put the garrison to the sword. So panic-struck were the enemy, when they saw a single European above the walls, that they could make no resistance. The killadar was made prisoner, a number of the garrison was killed, and not a few, terrified at the approach of Europeans with their bayonets, are said to have precipitated themselves from the rocks.

170 Other strongholds taken.

171 Effects of these successes.

The assault of these fortresses, which had hitherto been deemed impregnable, made so serious an impression on the enemy, that in none of the hill forts, however inaccessible, did they afterwards make an attempt to resist the British troops. Hence, the strong mountainous country between Bangalore and Seringapatam, which, studded with forts, had so much checked all communication, now afforded security to the convoys. These now reached the army without opposition; and the supplies of warlike stores of every description were as completely re-established as they had been at the beginning of the last campaign.

To prevent any future scarcity of the great article of grain, the commander in chief encouraged the native brinjarries, a class of men whose employment is purchasing grain where it is cheap, and selling it to the army. By constantly affording regular payment and a good price to these native merchants, they supplied the camp to an extent far exceeding what could ever be furnished by the most extensive carriage establishment. The grain-dealers had at this time passes for no less than 50,000 bullocks, whose rice was instantly paid for, as soon as it reached the camp, and orders given for purchasing more from whatever quarter it could be procured. This brought forth the resources of the enemies country as well as our own; for several of Tippoo's brinjarries, tempted by the certainty of payment and a high price, sold their rice in the British camp.

172 Preparations for another campaign.

Supplies being thus provided to an extent far exceeding every former example, the allied armies, and the different detachments, were ordered to assemble for another campaign. The Bombay troops, destined again to act from the same quarter as last season, marched from Cananore, and arrived at the foot of the Poodicherrim Ghaut in the month of December. Several weeks of hard labour were necessary to drag the artillery through woods extending nearly 60 miles, and over mountains of immense height. These mountains, which on the west command a view of the Malabar coast, and on the east of the country of the Mysore, form an elevated ridge towering into the clouds, on which the rivers are seen taking their rise, and flowing in different directions, till they reach the eastern and western shores of the peninsula. The friendly territory of the Coorga rajah surrounds the interior of this formidable pass, where a small opposition might bid defiance to a whole army. This circumstance enabled the Bombay troops, consisting of 8400 men, with all their baggage and artillery, and a supply of rice for 40 days, to penetrate with safety into the Mysore frontier, which they reached on the 22d of January 1792. To facilitate the return of our army, batteries were constructed, and the defence of this pass committed to Lieutenant-colonel Peché with 300 men, a precaution which had not the sultan overlooked, he would have suffered no invasion on this quarter of his dominions.

The Mahratta forces, which had separated from the main army at Bangalore, had spent the season of the monsoon in a train of exploits which seemed to imply more than their usual share of activity. With the assistance of the Bombay detachment of three native battalions, they took the important post of Simoga. after defeating Reza Saib and near 10,000 of the sultan's cavalry. This brilliant success encouraged Purseram Bow to engage in an enterprise against Bednore, which had nearly frustrated the whole plan of the campaign, by protracting his junction with General Abercromby beyond the stipulated time. From this attempt, however, he was diverted by the arrival of Cummer ud Deen Khan, one of Tippoo's best generals, who had been dispatched against him. This chieftain retook the fort of Simoga; but being too weak to encounter the Bow in the field, the Mahrattas effected their junction with the Bombay army, though somewhat later than the appointed season. The main army under Lord Cornwallis, which had been so actively employed during the rains in subduing the hill forts, and in collecting the necessary stores and reinforcements, was ordered ultimately to assemble at Outredroog, one of the strongest of Tippoo's forts, which was situated within 50 miles of his capital. This place being equally spacious and strong, was fitted up as a general hospital, and formed into a magazine for the grain and public stores that were not immediately needed for the army. The battering train under Colonel Duff, and the last convoys under Colonel Floyd, having safely joined, the main army was at last fully prepared to resume its enterprises

India. against the sultan, who, in imitation of his father, when formerly attacked in 1767, had encamped with the whole of his force in a strong position under the walls of his capital.

One junction more was still expected; that of the Nizam or Soubah from Gurramcondah, the lower fort of which he had captured. This prince having left a strong force to garrison the place, marched again to meet Lord Cornwallis, who was detained in expectation of this event for several days beyond the time he had appointed for leaving Outredroog. On the 25th of January, the young prince at last arrived with his army; his youth and inexperience were put under the guidance of a minister 60 years of age, a man of great talents and established reputation. The confederacy, which thus united the chief powers in the peninsula for the overthrow of a formidable and ambitious enemy, was attended also by an ambassador, who arrived at this time, from Madajee Boonsla the rajah of Berar. The Peshwa and the Nizam were themselves in the field on their respective frontiers, and all India looked with anxious expectation to the event of this important campaign.

173 The allied army approaches to Seringapatam.

On the 1st of February the allied armies marched from Hooleadroog, the last hill fort of which they had taken possession, lying at the distance of only 40 miles from Seringapatam. Tippoo's cavalry, which had been sent out to harass them on the march, made little impression, and were therefore chiefly occupied in burning the intermediate villages, and in laying waste the country. The last march, of the 5th of February, stretched across a range of barren hills lying six miles north-east of Seringapatam. From these heights, a view of the whole city was presented to the army, and the encampment of the sultan under its walls. Every circumstance was eagerly viewed by our troops; and, from the sultan's position, it was evident he meant to defend the place in person, and to make it the grand concluding scene of the war.

The camp of the allies was pitched on the north side of the island. The British formed the front line, and extended its whole length on both sides of the Lockany, a small river which at this place flows into the Cavery. The reserve was placed a mile in the rear, to afford space for the baggage and stores; and the Nizam and Mahrattas were stationed still farther in the rear, to prevent interference with the British camp.

Opposite to Seringapatam, on both sides of the river, a large space is inclosed by a bound hedge, which marks the limits of the capital, and affords a refuge to the peasants during the incursions of cavalry. Tippoo's front line, or fortified camp, lay immediately behind this hedge, where it was defended by heavy cannon in the redoubts, and by a large field train advantageously placed. In this line there were 100 pieces of artillery, and in the fort and island which formed his second line there were above thrice that number. The redoubts on his left were entrusted to two of his best officers, and a corps of Europeans commanded by Monsieur Vigie; Sheik Ansar, a general of established reputation, was stationed on the right, and the Carighaut hill; while Tippoo himself commanded the centre, having his tent pitched in the sultan's redoubt. The fort and island, where there was the greatest number of guns, were entrusted to Syed Saib and other commanders. The whole army of the sultan, thus stationed, India. consisted of about 50,000 men.

Ever since the junction of the allied armies, Tippoo finding he could not keep the field, employed his chief attention, and the labours of his main army, in fortifying this camp, and in strengthening his defences in the fort and island. The country had already been laid waste in the former campaign; and the sultan seemed to rest his hopes, that the strength of his works and the valour of his army would protract the siege, till the want of supplies, or the approach of the monsoon, would again force his enemies to abandon their enterprise, as they had been compelled to do on former occasions.

Impressed with these ideas, Tippoo made no attempt to interrupt our reconnoitring parties, who had been busily employed on the first day after their arrival in examining his camp. The distance of our position, and the absence of the armies under General Abercromby and Purseram Bow, increased his security: for he did not imagine that Lord Cornwallis would venture to attack him without their assistance; far less could he believe that a fortified camp, defended by the guns of his capital and a powerful army, would be attempted by infantry alone, without guns, and in the uncertainty of night.

The promptitude and spirit of Lord Cornwallis had suggested far different ideas, and a plan of attack which was bold beyond even the expectations of his own army. On the evening of the sixth of February, just after the troops had left the parade, orders were issued for an attack at 7 o'clock of the enemies camp and lines in three divisions. The British camp was left to be defended by the artillery and cavalry; while the assailants who were instantly furnished with guides and scaling ladders, marched in perfect confidence that muskets alone would prove the fittest instruments for opening their way into the enemy's camp.

No part in the execution of this bold enterprise was assigned to the troops of the allies; nor was the intended assault even communicated to them, till after the columns had marched. It was perhaps good policy to conceal from them a measure so repugnant to all their maxims of war, and in which they could not possibly concur. This opinion seems justified by the surprise and consternation which they displayed, on learning that Lord Cornwallis, like a common soldier, was personally to lead the attack on the enemies fortified camp. They not only deemed his success impossible, but they dreaded that the ruin of the allied armies would be involved in the attempt,

174 Tippoo's camp attacked.

The three columns into which the assailants had been divided, marched with equal intrepidity to execute the different objects that had been allotted them: many obstacles intervened; various conflicts ensued in different quarters of the enemies camp; each party was uncertain of the fate of the rest, and each individual of his associates. The return of day at last removed their fears and uncertainty, by disclosing the complete success which had crowned their exertions throughout the whole line of attack.

The right column commanded by General Meadows had met with more impediments than the rest; it attacked and carried the *cad gah*, a redoubt on the enemies

India. mies left, which was defended by eight guns, and a numerous garrison, nearly 500 of which fell in this attack. Considerable loss was also sustained by the British in this redoubt. After its capture, the column was again formed in its original order, and marched with a view to support the centre under Lord Cornwallis; but mistaking the proper track, and making too wide a circuit, it reached the Carighaut hill on the enemy's right, which had already been carried by Colonel Maxwell.

The centre column about 11 o'clock forced through the bound hedges, amidst a heavy fire from the sultan's redoubt and Tippoo's lines. These, however, were also forced. The troops were now enabled to cross the river, and penetrate into the island. So closely did they press upon the fugitives, that they would have entered the citadel along with them, but for the precaution of raising the drawbridge, which they had drawn up at the moment of entering the place. So precipitately had Tippoo been forced to abandon his tent in the sultan's redoubt, that his silver sticks, pikes, and mathematical instruments, were found scattered in the place. The fort being inaccessible from the removal of the bridge, the advanced party forced into the town or pettah, which had been almost abandoned for the defence of the batteries. Here they found 27 half-starved Europeans, loaded with irons, and confined in a dungeon. Some of these unhappy men, who were now relieved, had been cruelly given up to Tippoo by Admiral Suffrein; others were deserters, whom Tippoo, however, had treated with equal severity.

The left division of the attack, which was commanded by Lieut. Col. Maxwell, was destined to take possession of the Carighaut hill, and from thence to descend and penetrate into the island on the right flank of the enemy. These objects were effected with rapidity, and but little loss, except in crossing the Cavery, which was deep and rapid, and at the same time strongly defended by the enemy's batteries. In crossing the stream, which at this place was neck deep, the ammunition was unavoidably damaged; but the troops pressed forward with the bayonet, and at last joined the other divisions who were now assembled at the pettah.

The enemy having lost all their positions on the north side of the river, where the siege was to commence, and almost the whole of the island, every material object of the assault was secured. On the side of the British, the loss, though considerable, was small in proportion to the importance of the victory, and the disasters of the enemy; of whom, it afterwards appeared, that no less than 20,000 had either deserted, or been slain in the various conflicts during this night of enterprise, danger, and death.

On the 7th, the enemy, as if ashamed of the rapidity with which their different posts had been abandoned, made several attempts to recover them. Their efforts were directed chiefly to the sultan's redoubt, commanded by Major Sibbald. Exposed to the guns of the fort, and the batteries on the island, the major's little party defended the place for the whole day; and having successfully repulsed the different assaults of the enemy, they at last, weary of the attempt, desisted from the enterprise. The endeavour which the sultan's troops made to regain the pettah, met with a similar check; and the night of the 7th would have afforded some repose to the army, had not the rumour of an intended attack by Tippoo during the night, kept them on the alert. That such an attack had been meditated, there was full evidence; but both the chiefs and the soldiery were so much dispirited by the fatal train of events that had so rapidly taken place during the last twenty-four hours, that they could not be induced to second the zeal of their sovereign. During the various conflicts of the 6th and 7th, the fatigues and dangers of the British army were severe; and its loss in killed, wounded, and missing, was far from being inconsiderable (536 men). The extent and importance of the acquisitions gained by this brilliant contest seemed, however, to compensate every sacrifice that had been made. It now occupied the lines and posts from which the enemy had been driven; and the works which had been so completely fortified for the defence of the capital, now became lines of circumvallation for its attack. The troops on the one side were broken and dispirited; on the other they were in perfect order, and animated with their recent success. The Europeans in the service of Tippoo, after the disastrous events of the last two days, now despairing of his fortunes, deserted to our army; and many of them enlisted with the Mahrattas; others retired to the French settlements. After their departure, the sultan's army never encamped in order, or assumed a formidable appearance. India.

175 and Seringapatam.

The British army, now in possession of the island and town of Seringapatam, was immediately employed in making the necessary preparations for the siege of the fortress or citadel. This enchanting island being plentifully watered by the Cavery, and a vast number of intersecting canals, maintains a perpetual verdure: on the east, it is decorated by the buildings of the fort, which occupies a mile square; on the west, by the Laul Baug, containing the mausoleum of Hyder Aly, adorned by tall cypresses, shaded walks, with a variety of trees, whose foliage and perenuial verdure announce an everlasting spring. The mosques and religious buildings were converted into hospitals for the wounded and sick; and the trees, now for the first time assailed by the axe, furnished materials for fasciues and gabions for the approaching siege.

The proud mind of the sultan could not remain tranquil, on seeing his beautiful gardens and all his improvements threatened with destruction, by an enemy who was also preparing to deprive him of his citadel and all that remained of his power. His indignation was expressed by a continual discharge of cannon from the fort, directed against the island, the redoubts, and every party of ours that seemed within his reach. Some of his shot ranged as far as the camp, aimed apparently at head quarters: but the distance of the several posts was too great; and his ineffectual cannonade served rather to proclaim the wrath of the sovereign, than materially to annoy his enemies.

Tired by these repeated efforts, which he saw were vain, and worn out by the ebullitions of his own anger, Tippoo at last began to meditate seriously on the necessity of a peace, the only means by which he could extricate himself from his perilous state. In order to smooth the way for his overtures, he previously liberated two British officers, who had been detained contrary to capitulation in Coimbatore; these officers, till now the victims of his cruelty, he loaded with presents, and made them

India. them the bearers of a letter to Lord Cornwallis suing for peace. Another expedient, more daring, but far less honourable, was nearly at this time practised to attain his deliverance. A small party of horsemen were despatched to the British camp in the night, for the purpose of assassinating the commander in chief: as straggling parties of the Nizam's horse were near, the troopers, mistaken for friends, had little difficulty in entering the camp; and, but for an accident, might have effected their purpose. Detected, however, by their inquiries for his lordship's tent, they were fired at by a party of recruits; and such was the speed with which they made off, that they suffered little damage in this disgraceful enterprise, which is so often resorted to by the princes of India. This was the second attempt against the commander's life during the present war: that both were unsuccessful, must be ascribed to that intoxication in which the natives are plunged, before they can be induced to venture upon such hazardous deeds.

Though Tippoo had recourse to these vile projects, which he knew were countenanced by the practice of his country, he did not trust to them solely for his defence. The Bombay army which was at this time approaching, he combated and harassed by every effort of honourable war: its junction, however, with the main army was effected on the 16th; and on the second night after this event, the trenches were opened, and a parallel formed within 800 yards of the north face of the fort. General Abercromby, stationed on the south quarter with a strong detachment, was ordered to canuonade it from the heights. This attack being directed against the weakest part of the fort, occasioned the greatest alarm. Tippoo himself, therefore, at the head of his troops, marched to dislodge the general: being supported by the guns of the fort, he maintained the action for the whole day; but towards evening, he was forced to retreat.

This desperate effort was the last that Tippoo made for his defence. His affairs hastened to a crisis; cabals were formed by the chiefs, and his troops deserted in multitudes during the night. Plenipotentiaries from the allies, since that, had been treating with his vakeels; his haughty spirit, hitherto untractable, was now forced to yield to their demands. He saw his capital blockaded on every side by a powerful army, plentifully supplied with provisions, which must infallibly reduce his troops by famine, should they even prove successful in repelling its assaults; even his last hopes of relief from the monsoon, and the swelling of the river, were thus finally cut off.

176 Treaty of peace signed by Tippoo.

On the 23d of February, therefore, the preliminaries of peace were signed by Tippoo, amidst the conflicting emotions of pride, resentment, and fear; and orders were issued to the troops on both sides to cease from farther hostilities; a stipulation, of which the dread of an immediate assault alone inforced the observance.

By the terms of this treaty, Tippoo was compelled to pay, as an indemnification for the expences of the war, three crore and 30 lacks of rupees at two instalments, the first to be advanced immediately, and the second at the end of four months. Other articles of this instrument provided farther, that the whole prisoners taken from the allied powers from the time of Hyder Aly, should be unconditionally restored; that no less than one-half of his territories should be ceded to the allies; and that two of Tippoo Sultan's three eldest sons should be given as hostages, for the due performance of the treaty. India.

The candid and upright conduct of Lord Cornwallis had gained the full confidence of all the allies. So complete was the ascendancy he possessed over their councils, that they submitted without a murmur to all the arrangements which he proposed; a circumstance (considering the deep interests which were at stake) that must be regarded as not the least extraordinary in this campaign.

The terms of this agreement, which resembled a capitulation more than a treaty, were hard, and Tippoo with great difficulty was prevailed on to subscribe to them. Another struggle, perhaps still greater, yet remained for his family. This arose from the distress in his seraglio, on parting with his children. The sultan was entreated to request another day for making preparations for their departure; and Lord Cornwallis, though he had already dispensed with their accompanying the treaty, as first agreed, had the humanity to grant this request.

177 His sons delivered up as hostages

About noon day on the 26th the princes mounted their elephants richly caparisoned, and attended with a splendid retinue left the fort, the walls and ramparts of which were crowded with multitudes of spectators. Amidst the vast multitudes whom curiosity or affection had drawn out to witness this scene, Tippoo himself was beheld standing above a high gateway through which, as they passed, the princes were saluted by the guns of the fort; a compliment which they again received as they approached the British camp. They were seated in silver howdahs, attended by their father's minister, and a numerous retinue. The procession which they thus formed, was equally grand and interesting. It was led by several camel harcarras and standard-bearers, carrying green flags suspended from rockets, followed by one hundred pikemen with spears inlaid with silver. Their guard of two hundred Sepoys, and a party of horse, brought up the rear (c.)

In this order the princes proceeded till they approached the tent of Lord Cornwallis, who had ordered a battalion of Sepoys for their reception; where the commander in chief embraced them with a cordiality and tenderness that resembled parental affection. The manners, dress, and appearance of the young princes themselves, formed an interesting spectacle to their European hosts. Bred up from their infancy with infinite care, and instructed to imitate in their manners the reserve and politeness of more advanced age, all present were astonished to observe the correctness and propriety of their conduct. Abdul Kalick, the eldest, was of a dark complexion, even among the natives of India; but his countenauce was marked by thoughtfulness and intelligence.

(c) For the substance of this account we are indebted to an eye witness, Major-general Dirom; who has favoured the public with an excellent narrative of this campaign.

gence. The younger, Mooza ud Deen, was remarkably fair; a regular set of features, with an open appearance, rendered him the general favourite, and more admired than his brother. Clothed in red turbans and long white muslin gowns, every where sparkling with emeralds, rubies, and pearls, their external decorations displayed a brilliancy far surpassing every European idea of dress, and seemed to realize those laboured descriptions of splendour, which are in the western world only seen in the pages of romance. Thus attired, the young princes, immediately after their reception, were seated on each side of Lord Cornwallis, when Gulam Aly, the head vakeel of Tippoo, thus addressed the British general: "These children were this morning the sons of the sultan my master: Their situation is now changed: They must look up to your lordship as their father."

178 Their reception by Lord Cornwallis.

The conduct of the commander in chief had perhaps suggested this address: he had in fact received the boys, as if they had been his own sons; and he again anxiously assured the vakeels, and the young princes themselves, that every possible attention would be shown them, and the greatest care taken of their persons. The scene became more interesting; the faces of the children brightened up; and not only their attendants, but all the spectators, were delighted to observe, that any fears they might have harboured were removed, and that they would soon be reconciled to their change of situation. With regard to the youngest, this desirable object was likely to be first attained. He was the favourite son, and was said to be the sultan's destined heir: his mother, a beautiful and delicate woman, had lost her brother in a late action; and she herself had died of fright a few days before the attack of the lines. These circumstances, together with his own captivating appearance, drew to the youngest boy the greatest share of attention, and rendered his situation doubly interesting.

After being regaled, in the eastern manner, with otter of roses and betel nut; the princes were presented each with a gold watch from Lord Cornwallis, a gift from which they seemed to receive great delight. On this occasion the ministers of the Nizam and the Mahrattas attended with their suits; and when the ceremony of their reception was ended, the princes were led back to the tents furnished by the sultan, which were of a green colour, an emblem of majesty which Tippoo always had carried with him into the field.

The detaining of Tippoo's sons as hostages, may be deemed a rigorous condition imposed on that prince; the event, however, soon proved, that without this precaution, he could never have been induced, unless by a renewal of hostilities, to fulfil the terms of the treaty. The value of the money to be received, as well as the rents of the different districts to be ceded, were keenly disputed. When the territory of the Coorga rajah, in particular, was required, the demand seemed unexpected both by the sultan and his ministers, and was at first received with astonishment and disdain. This rajah was considered as a chief cause of the war, and Tippoo, therefore, wished to crush him. Lord Cornwallis seemed equally resolute in his defence; for he again manned the works, and threatened to recommence the attack. Happily, his stock of provisions was ample; and although upwards of 400,000 strangers and half a million of cattle were daily to be fed, the supply was sufficient for the whole; while one million sterling of the fine imposed on Tippoo, had already been paid. The firm determination of the commander in chief, aided by these circumstances, which were not unknown to the sultan, damped his resolution. His resentment cooled, and he finally implemented the terms agreed upon, copies of which were delivered to the confederated power.

The war against Tippoo, which was now happily terminated, placed the dominions of the India Company and of their allies in a state of safety and tranquillity which they had never enjoyed since the aggrandisement of his ambitious family. In the former campaigns against the Mysore, the civil and military powers were placed in separate hands; measures were planned without either energy or uniformity of system; and their execution being trusted to other hands, seldom displayed the promptitude or vigour necessary to their success. They had often ended in the accumulation of debt, without adequate advantage; sometimes they produced the devastation of the company's possessions; and hitherto they had uniformly increased the power and pretensions of the formidable adversary whom they were meant to subdue.

This war, just concluded, was followed by effects suited to the energy and perseverance with which it had been conducted. The one half of his dominions was at once wrested from the hands of the common enemy; and while his power was thus diminished, an additional strength and security was conferred on his neighbours, by that impregnable barrier which was added to their territories. In the three different campaigns the sultan's loss had been great; in the last, it seemed almost irredeemable, not less than 67 forts were taken, 800 cannon fell into the hands of the allies; and the killed, wounded, and missing of Tippoo's troops amounted to 49,000 men. At the conclusion of the treaty very few places of strength were left in his possession; his treasury was drained, and the strength and spirit of his army completely broken. To the moderation of the British commander alone it was owing that he still remained a sovereign; for he was at last completely in the power of the victors. This moderation, but little merited by a cruel and vindictive enemy, he easily forgot when his power was afterwards revived, and he permitted his French counsellors to persuade him that he was again able to contend against the British government.

179 Advantages of this treaty to the company

In the mean time, however, the India Company's territories sensibly felt the advantages of the treaty of Seringapatam. The presidency of Madras, which was most exposed to inroads from the Mysore, has by that event secured a chain of forts along its frontiers, which has ever since effectually freed it from the evils of invasion. The Carnatic, recovered from its former calamities, must improve its revenue, while it is defended at a less expence. The Malabar coast and presidency of Bombay have experienced, ever since the victory at Seringapatam, a state of still greater security than the Carnatic. It contains a country the most varied, and perhaps the most fertile in India, which under a regular government may be improved to an extent at present

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present almost inconceiveable. Hitherto, from being a scene of constant war and bloodshed, it has not been suffered to develope its resources.

While the relative situation of the British and the sultan were thus improved by the pacification, the interests of our allies were perhaps still more essentially benefited. The Mahrattas have gained an addition of strength as well as territory, by enlarging their frontier from Darwar to the Tumbudra; and the Nizam has gained a similar advantage, being strengthened on the one side by the same river, and on the other by the Sanar and Gungecotta. Both powers are by their position placed nearer the aid of the British, to whom they must in future look up for their defence against all their enemies, as well as the aggressions of the Mysorean armies. During the seven years tranquillity that succeeded this memorable campaign, the armies of both these powers, having no external enemy to call forth their exertions, gradually relaxed in discipline, and assumed a still more tumultuary and unmilitary appearance.

180 and to the allies.

On the other hand, the troops of Tippoo, from his unconquerable hostility to the British power, and from the secret instigations of the French, were kept in a state of constant preparation, by which their discipline was improved. The influence of time, and the resources of a vigorous government, gradually repaired the vast losses which had been sustained during the three last campaigns. The power of the Mysorean court had indeed been much impaired, but it had lost none of that antipathy and hatred against the neighbouring states by which it had always been distinguished.

Of all the confederated powers engaged in this war, the British derived, perhaps, the smallest share of the direct and immediate advantages which resulted from it. The prize-money shared by the army, although increased by the renunciation of the shares of Earl Cornwallis and General Meadows, was not great; and the territories that were ceded to the India Company being disunited and at a distance, seem to have been demanded rather with a view to weaken the common enemy than to add to their resources. Prior to the year 1799, the period of the final conquest of Seringapatam and the Mysore, more than two-thirds of the ancient territory of the Mogul empire still remained in the hands of populous and independent states, professing either the Hindoo or Mohammedan faith. Among the latter, the Nizam and the king of Mysore still held the chief rank; while five powerful Mahratta chiefs, the adherents of Brahmanism, occupied the first station in the former class.

Some of these princes, during the former wars in Hindostan, had individually arranged themselves on the side of the monarchy of France, against that of Britain. These rival and leading powers in Europe, had for near a century occupied a similar position in the east, which decided in some measure the fate of Asia. The republican councils, however, by which the French government had been lately subverted, embraced a much wider range in their foreign policy.

They attempted to form at once all these different princes collectively into a combination, which they hoped might become the instrument of their own ambition. Hence proceeded their warm professions of philanthropy to the natives, and their new-born zeal for improving their condition, and for rescuing them from the rapacity and tyranny of the British. The same unperishable thirst after external conquest and universal dominion which instigated that nation to attempt those momentous changes, which were lately beheld in Europe, began to display their violence in the east, and to characterize the whole of the French policy in Asia. Confidential agents had already been dispersed over the territories of these princes; officers from France had been secretly sent out and appointed to their armies. For several years these agents had been sedulously employed not only in disciplining their troops, but in promoting among the native princes a combination for the purpose of subverting the British government, and for annihilating throughout the peninsula every power that might be deemed hostile to their own.

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181 Restless ambition of the French.

These schemes of ambition, wild and romantic as they may seem, have been executed with complete success over almost one half of Europe; and it must be confessed, that the power of the mighty confederacy which was projected in the east, was more than sufficient to subjugate the whole of India, had it been possible to effect the steady co-operation of its members in any common system of policy. A closer view of it will evince its power and efficiency for the execution of the most extensive plans even of French ambition.

The Mahratta empire, by being properly consolidated, must of itself command an immense force. Stretching throughout the whole length of the peninsula, from the bay of Bengal to the banks of the Indus, its population has been estimated at no less than forty millions of souls; while its known revenue has been found to amount to seventeen millions sterling. These resources, however ample, it must be noticed, are far more efficient in India than in Europe; they have there been found by actual experiment, adequate to the establishment and constant maintenance of an army of upwards of 300,000 men. Nor has the progress of the French emissaries in communicating Europeau tactics to this immense force, been at all inadequate to the vast schemes of their policy, or to the magnitude of the undertaking; many battalions in the service of the Peshwa and of Holkar, but more especially in the establishment of Scindiah, have been found in a state of discipline that might have been deemed creditable in most European armies. Among the troops of this latter prince, the brigade of General Perron has long been distinguished by a system of tactics hardly inferior to that of the British Sepoys; it consists of about 40,000 men, who are regularly regimented and brigaded, and as completely clothed and accoutred as the British troops. The pay of this force is regularly issued, a rare occurrence in India; and while in the field, its operations are sustained by a well appointed artillery, consisting of upwards of 40 pieces of ordnance.

To the charge of this favourite portion of his army Scindiah has for some time past committed the capital of the empire, and the custody of the venerable but unfortunate Shah Allum; a monarch who, it is said, has reached the uncommon period of 90 years; and who, it would appear, is more wasted and broken down by an unexampled load of calamity, than by either the weight or feebleness of his singular age. The forcible restraints to which this unhappy prince has for many years

years been subjected, easily enabled the French party among Scindiah's troops to wrest from him the sanction of the imperial name, and the semblance at least of legitimate authority; a matter of some moment, as it served to screen the progress of usurpation. It was accordingly in the vicinity of the capital, and almost in the presence of the dethroned emperor, that the projects of French ambition seemed to tend to maturity with the most steady and rapid course. Considerable advances had already been made towards the formal cession of the important provinces of Agra and Delhi to the French government, and towards their final union with that distant kingdom.

182 Vigorous government of Marquis Wellesly.

Fortunately for the independence of the neighbouring states, and the safety of the British empire, that nobleman who at this critical period had been appointed to the government of India possessed a complete knowledge of the character and views of the French nation. Soon after the arrival of the marquis of Wellesly in the east, his innate penetration, and unwearied industry in acquiring the knowledge of Indian politics, enabled him to discover the whole range and extent of those plans of hostility which the French had meditated in Asia. He was fully apprised of the dangerous situation of the British empire in that quarter of the globe; and with equal promptitude and energy he employed the whole resources of its power in order to avert or repel the danger.

It was, however, at Hyderabad in the Deccan that the impatience and activity of French intrigue first compelled him to meet actual hostility in the field: an insurrection of the French officers there had wrested from the Nizam the whole authority over his army, and in fact, had already converted that faithful and peaceable ally of the British into an open enemy. By a sudden and unexpected movement of a small part of our army, that had been prepared for this purpose, these officers were all suddenly apprehended, and the allegiance of the Nizam, and the subordination of his army, were almost instantaneously restored. This first act of the marquis Wellesly, though scarcely heard of in Europe, certainly augured favourably of his government; for it not only paved the way to his subsequent success against the Mysore, but from its promptitude and decision it deserved to be ranked among the most meritorious measures of his whole administration.

The vengeance of the king of Mysore, for his former losses and defeats, had not suffered him to enjoy a moment of tranquillity after the late pacification (D). He had in fact been raising up a Mohammedan confederacy, which was to consist of the grand seignior, the Persian chiefs, the naboh of Oude, and the Nizam; and was intended for a purpose, no less splendid in the eyes of the faithful, than the extirpation, not only of the British, but of all the enemies of Islamism throughout Hindostan. The army of this prince was fully prepared to take the field, but the fortunate event that has just been related, had deprived him of the co-operation of the Nizam, his nearest, and therefore his most efficient ally.

The native princes of India are in general far more prompt in imbibing resentment, and in learning maxims of hostility against their neighbours, than cautious or prudent in their application. Their French instructors were also, at this period, so much intoxicated with the new form which their own government in Europe had assumed, that they had instituted a society, in the capital of Mysore, for the romantic purpose of spreading the doctrine of liberty and equality among the despots and slaves of Asia. The sovereign of Mysore himself was easily persuaded to become an honorary member of this institution, where he appeared among its associates under the name of *Citizen Tippoo*, an appellation perhaps the most awkward and incongruous that had ever been assumed by an eastern despot. The wild and frantic orisons that were daily poured forth in this club, in favour of an imaginary liberty, were constantly accompanied with sentiments of detestation, and vows of eternal hostility, against the British government; its forces were therefore instantly prepared and marched into the field to meet an aggression, which there had been so little care taken to conceal. Past experience had taught the British officers to avoid the pursuit of a native army in its rapid and discursive evolutions in the field; the British, therefore, marched directly towards the capital of the enemy, which fell, but not till two decided victories had been obtained without its walls, and also an obstinate defence had been made in the interior of the city. In this last conflict (E), which was maintained by both the assailants and the natives with equal valour and obstinacy, much blood was spilt, and the lives of many brave men were lost, among the rest that of Tippoo Sultaun, whose body was found, after long search, among heaps of the slain, where he had fallen nobly defending the last bulwark of his kingdom, and where, however unfortunate he may be deemed in other respects, he at last met with a fate not unworthy of his bravery.

183 Fall of Tippoo with his capital.

By the pacification at Hyderabad, the fall of Seringapatam, and the death of Tippoo Sultaun, the Mohammedan branch of the grand confederacy, which the French had raised against the British power in India, was completely broken and finally destroyed. For although the few remaining adherents of the deceased monarch made some desperate efforts for the restoration of his family, these were rendered abortive by the activity and vigilance of those British officers who had been left in charge of the conquered country (F). The campaign against the Mysore was, therefore, completed by a signal act of justice, as creditable to the government of India, as the late brilliant successes had been honourable to the British arms. The greater part of the vanquished territory was restored to the rajah of Mysore, and his ancient family again mounted that throne,

(D) Effected by Marquis Cornwallis.

(E) This memorable attack was led by General Baird, who had been for three years confined in a dungeon by the tyrant.

(F) Particularly by Sir Arthur Wellesly, who signalized himself by the defeat of Doondea Waugh, the most steady adherent of Tippoo.

India. from which they had been driven by the treachery and usurpation of Tippoo and his father: nor did the vengeance of the British, though hurled with such destructive rapidity against the most formidable and inveterate of all their enemies, prevent them from affording sympathy and relief to the surviving family of the Mysorean kings; ample endowments were set apart for their support, which they still continue to enjoy, with perhaps equal comfort, and certainly with greater security, than in the most prosperous days of the fortunes of their house.

This train of important and successful events took place during the short space of only a few months after the arrival of the marquis of Wellesly, and they certainly entitled his administration to rank with the most active and brilliant that had ever been displayed by any governor of India; according, however, to his views of the state of that country, he must have regarded his labours as scarcely half finished. He saw the immense power of the Mahratta empire still remaining not only unbroken, but daily increasing, and consolidating under the active and unceasing operation of French influence. A French state, as already noticed, of large extent and formidable power, had been framed by the successive labours of Generals de Boyne and Perron, around the capital of India. This nascent power the all-devouring ambition of the new emperor had already grasped as a rich prize, and its destruction became therefore absolutely necessary to the safety of our empire in India, since amidst all the multiplied aggressions of his neighbours, the usurper had uniformly distinguished the British nation as the marked though perhaps not the ultimate object of his hostility.

The reduction of a hostile power so immediately in the vicinity of our possessions, might certainly have justified a war; but as no actual aggression had yet been committed in that quarter, it was on the other side of the peninsula that the marquis of Wellesly was again first called upon for the active support of the interests of his government: the danger became at once pressing and immediate by the usurpation of the whole Mahratta power by a single chief; and the cause of the fugitive was identified with our own.

184 No balance of power known in Indian politics.

The politics of India were never so refined, or considerate, as to admit of a balancing system, by which the overgrown power of any individual state might be prevented from endangering the independence of the rest. Hardly any circumstance of common danger has ever been deemed sufficiently urgent, to unite the native princes in the defence of the country even against foreign invasion. During the contest between the British and the king of Mysore, the Mahrattas observed a suspicious neutrality: they gazed on the combatants with an indifference that bordered on fatuity; and which strongly foreboded the dissolution of their state. After the fall of that kingdom, their empire actually fell into a state of anarchy that demanded the most prompt measures of precaution for the safety of the British territories, and those of its allies, which lay around its frontiers. The constitution of their empire, originally ill constructed and undefined, had lately been radically changed. The ancient rajahs of Satarah, who had originally laid the foundation of its power, and extended its influence over the peninsula with such unexampled rapidity, had gradually sunk from the rank of sovereigns to imbecility, and, owing to the personal ambition of their servants, fell into a station, if not of abolute privacy, at least of complete insignificance. India.

Their ministers, already become hereditary in their offices, and too powerful for controul, had sufficient influence to remove the seat of government from Satarah, and to constitute the town of Poonah the capital of the empire. There, removed from the eyes of the princes, they no longer deigned to preserve further allegiance, than the semblance of delegated power; they accordingly retained the appellation of Peshwa, but compelled the subordinate members of the confederacy to acknowledge them as the legitimate organ of the whole executive power of the state, whether civil or military. It is, however, scarcely possible, accurately to define either the rights or the power attached to the Peshwa, after his being acknowledged representative of the supreme head of the empire. The extent of his prerogatives seems to have varied at different times, according to the personal talents and ambition of each incumbent in the exercise of this recent power.

Bajee Rao, the present Peshwa, from that imbecility and indolence which in Asia is so often attached to high stations, had devolved upon inferior agents almost the whole of the active duties of his office. His power had frequently been disputed or controlled; he had at different times nearly become a prey to the ambition of the subordinate chiefs; and, at the period now under review, though defended by Scindiah, he had been completely defeated by Holkar's troops, and obliged to flee for security beyond the limits of his own dominions.

The danger to the British possessions, and those of their allies, became pressing and immediate, from this usurpation of almost the whole Mahratta power by the hands of a single chieftain; and the cause of the Peshwa thus became identified with that of our India government.

A treaty of defensive alliance between the India Company and the Peshwa, was therefore drawn up at the earnet solicitation of that prince, and was finally ratified at Bassein, where he had fled from the aggressions of Holkar for protection. By this instrument, it was stipulated, that he should be restored to his dominions, and to the exercise of his legitimate authority, on condition of his maintaining for the defence of his territories, and at his own expence, a brigade of British troops; which it was at first agreed should consist of 6000, but afterwards the number was increased to 10,000 men.

The terms of this convention were no sooner arranged, than the British army, under Sir Arthur Wellesly, marched towards Poonah with that promptitude and decision which have always distinguished the services of this valuable officer. The rapidity of his movements, and his unexpected advance, saved the capital from destruction; for the troops of Holkar, who had continued to pillage the city, since it fell into their possession, had at last resolved to finish the catastrophe, by setting it on fire. Alarmed, however, by the sudden approach of the British army, they fled from the place with the utmost precipitation, and soon after abandoned the territory of Poonah. Room was thus made for the peaceable

185 Poonah taken.

able restoration of the deposed sovereign; and the Peshwa, when he afterwards arrived, was received by his subjects, not merely with submission and quietness, but with every mark of the sincerest joy and satisfaction. During his absence the inhabitants had been subjected to the severest forms of military execution; and forced to submit to the various exactions of a chief the most needy, desperate, and rapacious, of all the leaders of the predatory bands of his countrymen. When, therefore, they again beheld their lawful sovereign, they greeted his return by salutes from all the forts in his kingdom, and testified their joy, by illuminations on the tops and acclivities of the hills throughout the whole vicinity of Poonah.

Thus far the measures of the governor of India wore an aspect of consistency and vigour, which augured well in favour of their ultimate success. The justice of his interference at this time, to check the overgrown power of an aspiring adversary, and to succour the distress of a fallen prince, will hardly be questioned by such as are versant in the politics of India: Nor will it be denied, since all the Mahratta princes exercised the right of making treaties themselves, that the same privilege belonged to the head of the empire.

According to these views, the defensive treaty of Bassein was not only avowed by the parties, but freely communicated to the rest of the chiefs, who explicitly declared, that it contained no stipulations injurious either to the principles of their constitution, or to the just rights of any member of the Mahratta confederacy. On the other hand, its advantages were sufficiently obvious. It had the immediate effect of restoring a deposed prince to his throne, and to the exercise of his acknowledged rights, as well as of checking a dangerous usurpation. It detached from the influence of French councils a very important branch of the Mahratta confederacy, and therefore coincided with the general tendency and spirit of the British policy in the east.

But the power of the Peshwa, and the predominant rights which, by the constitution of the empire, were attached to his office, had, as was already noticed, become a grand object of ambition among the more considerable chiefs. Scindiah had for many years laboured to gain an ascendency at the court of Poonah, and on some occasions actually possessed a powerful influence on its councils. Ragojee Boonsla had, from family connection, some grounds for the advancement of his own claims to this office; while Holkar had lately, by the fortune of war, had the whole authority placed within his grasp, and in the name of Amrut Rao, brother to the Peshwa, had actually begun to exercise its different prerogatives.

186 Combination of the Mahratta chiefs.

The final deprivation of these chiefs, of so fair an object of ambition as the general controul of the whole Mahratta empire, seemed to reproach their indolence and want of ambition; and the nearer they considered its attainment, the stronger the jealousy and disappointment which its loss occasioned. The deep resentment thus excited among these chiefs, though unacknowledged by themselves, was the true cause of that open hostility which they were now about to commence against the British power. Thus impelled by the strong emotions of disappointed ambition, Scindiah and the rajah of Nagpore entered into a close engagement to frustrate the arrangements lately stipulated by the treaty of Bassein. In order to execute this purpose, each chief set on foot a large army, which was marched from different quarters to a point of union, bordering on the territories of the Nizam, an ally of the Indian company.

This menacing position they maintained for a considerable time, in order to complete their own preparations, and the more effectually to urge Holkar to join their confederacy; nor could they be persuaded to abandon it by the strongest remonstrances of our government against military preparations so unnecessary for their own defence, and in a situation so incompatible with the peace and safety of the British allies. However unwilling the marquis of Wellesly might be to hazard the tranquillity and safety of the British empire in the east by entering into a contest with these powerful chiefs, whose dominions actually stretched over more than one-half of the peninsula of India, he had however no alternative left him. The full and positive information which he had from various sources obtained, of the nature and extent of the hostilities that had for some time past been meditated, was now confirmed by the menaces of the enemy, and the actual preparations that he had made to carry them into execution. He foresaw the dangerous crisis which was now so near at hand; and the hollow professions of friendship which were constantly sent in reply to his remonstrances, did not for a moment prevent him from bringing forward the whole resources of his government to defeat their enterprises.

187 Armies sent against them.

A combination of the Mahratta empire, so extensive and powerful as that now formed by the confederates, had never hitherto been brought into action against the British power; and it must be acknowledged also, that a system of defence, equally prompt, vigorous, and comprehensive, was never planned by any former governor of British India. Five different armies, each of considerable force, were speedily prepared, brought into the field, and ready to invade the vast territory of the enemy, nearly at the same period of time. The value of the previous arrangements that had been formed with the Nizam and the Peshwa, particularly the subsidiary treaties, was now distinctly felt. By them the British army was enabled to proceed through the friendly territories of allied chiefs, to the very boundary of the Mahratta dominions, where it was joined by a large subsidiary force both from Hyderabad and Poonah, which materially promoted the success of the campaign. The marquis thus was enabled to attack the extensive dominions of the enemy, from almost every assailable point, by an effort almost simultaneous.

On the south they were invaded by a powerful division of the Madras army under Sir Arthur Wellesly; in Guzerat, on the west, by Colonel Murray, and a strong detachment of the Bombay troops; a similar effort was also made by General Lake on the northern extremity of Scindiah's dominions, where the main strength of his army was stationed in conjunction with the celebrated brigade of General Perron. On the east, in Bundelcund, the same system of attack was pursued, where the adherents of the confederacy, Ali Mohammed and Himmut Bahaudur, were overpowered and dispersed. During the execution of all these operations, the provinces of Balasore and Cuttack were wrested from the rajah of Nagpore, by the immediate direction and under the auspices of the governor-general

India. ral himself who had planned and combined all these assaults with a degree of judgment and accuracy which secured their uniform success, and which has proved as creditable to his own talents as the prompt execution of his plans has been honourable to our Indian armies. But the circumstance which appears most signally to have promoted the success of this eventful campaign, was the ample and unrestricted authority which was conferred on the different commanders carrying on their operations so far removed from the seat of government. It was thus these officers were enabled to meet every new exigency by the unrestrained application of all their resources, and to surmount or evade unforeseen difficulties, as they happened to arise, by the immediate exercise of discretionary power. The unexampled rapidity of our victories, and vast extent of the conquests that were made in the short space of a few months, must be in some measure also ascribed to that just tribute of commendation which was so impartially and liberally bestowed on the officers and troops after their hard-fought battles. This approbation, equally merited and useful, inspired the army with a just confidence in its own strength, and preserved among the troops uncommon alacrity amidst their fatigues and danger.

The strong partiality which the marquis of Wellesly must have naturally felt for the brilliant services of his brother, on no occasion prevented him from discerning the merits of other officers, and from conferring on them their just share of applause. Immediately after the battle of Delhi, he expresses his sense of the services of General Lake and his army in the following spirited and patriotic terms in his general orders to the troops. He observes, that " on reviewing the rapid successes obtained by our arms within the short space of a few months, every loyal subject of the British empire must be animated with the most zealous emotions of just pride and national triumph. I have already expressed the sentiments of gratitude and admiration with which I contemplated the conduct of his excellency the commander in chief, and his army, in the action of the 29th of August, and in the gallant assault of the fortress of Ally Ghur on the 4th of September. The decisive victory gained on the 11th, in the battle of Delhi, justifies the firm confidence I reposed in the bravery, perseverance, and discipline of the army, and in the skill, judgment, and invincible intrepidity of their illustrious commander. The glory of that day is not surpassed by any recorded triumph of the British arms in India; and is attended by every circumstance calculated to elevate the fame of British valour, to illustrate the character of British humanity, and to secure the stability of the British empire in the east."

The bravery of Sir A. Wellesly and his army, their achievements in the memorable battles of Assye and Argaum in the Deccan, were not less conspicuous; nor were the general merits of this officer less worthy of those liberal and manly encomiums which he received from the marquis. Both commanders enjoyed the approbation of their sovereign, and received from him those honours which are the reward of valour. Fortunately too for the interests of the British empire, assailed at this period by the most inveterate of all its enemies, the solid advantages resulting from those well contested battles were not inferior to the splendour of their achievement.

Their immediate consequences were the defeat of the combined armies of the confederate chiefs; and, from the loss of their artillery, an irreparable blow to their strength and resources throughout the whole of the Deccan. These prosperous results were, no doubt, aided and accelerated by the auspicious progress of the army at all the different points from which it invaded the Mahratta empire. Soon after these successes, the French officers attached to Scindiah's army, after having quarrelled with the native sirdars and with each other, abandoned the service of that chief: after the example of Perron their principal partizan, they submitted to the protection of the British commander, who suffered them to retire with whatever property they had acquired, and had been able to bring away.

India. 188 Their brilliant successes.

Thus the grand fabric of French power which that nation had been anxiously raising up, with the assumed sanction of the imperial authority, and the more efficient support of the Mahratta power, was at last broken down, and completely destroyed throughout the whole of India. The conquest of Balasore and Cuttack by Colonel Harcourt seemed well calculated to prevent its future renovation; for it connected the two presidencies of Bengal and Madras, and united the British territories along the whole extent of the Coromandel coast, where they now present an unbroken and hostile frontier against every inroad from the shore, and form a barrier against the introduction of French supplies, and officers to discipline the armies of every inimical power.

The strong detachment of the Bombay army under Colonel Murray, though engaged in enterprises apparently less splendid, were equally serviceable in promoting the important results of the campaign. This officer not only defended the coast and British territory in that quarter, and those of our ally the Guickar rajah; but he also reduced the fortresses of Broach, Powanghur, and other posts of importance. Thus, in every quarter of this extended warfare, was the British cause triumphant;—on the shores of Guzerat and Balasore, on the mountains of the Deccan, and in the plains of Delhi, her banners were supported with equal energy and spirit; and victory everywhere continued steadily to follow them.

In the space of a few months, a rapid succession of events had taken place, of sufficient importance to change completely the relative condition of the British empire, and the different powers of India. Its power was enlarged; and its ascendency among the neighbouring states was without controul. Seven hundred pieces of cannon had been taken from the enemy; their armies routed and dispersed. Eight fortresses had been reduced, either by siege or by escalade. The mighty strength of the French and Mahratta confederacy had been suddenly crushed throughout a territory extending over 1000 miles square. What seemed, however, of no less importance, in these warlike times, and in the critical situation of the British empire, then attacked and threatened with invasion, by its most powerful and inveterate enemy in Europe; her military reputation was heightened; the laurels she had lately gathered in Syria and Egypt were refreshed; and she enjoyed a satisfactory proof, that amidst increasing luxury and imminent danger, no portion of the enterprise and valour of her armies had been lost. Nor is it to be forgotten

India. gotten that all her late victories in the east, had been obtained over troops not in the ordinary circumstances of Indian armies. They had been disciplined by European officers, and led with intrepidity and skill. The proficiency they had made in European tactics was so great, that during the action at Assye, the Mahrattas made no less than five different changes of position, and sustained on the same day an equal number of assaults, before they yielded the contest. It was by the point of the bayonet alone, that they were at last compelled to relinquish their guns; 100 of which were taken on the field of battle, by an army scarce amounting to a tenth part of the number of that which they had, with such singular bravery, driven from the field.

189 Peace concluded. The Mahratta confederacy being finally subdued, a peace was concluded between the India Company, Dowlut Rao Scindiah, and the Berar rajah, in January 1804. The short period of tranquillity that succeeded this event was speedily interrupted by Holkar, another powerful chief, whose expulsion of the Peshwa had originally occasioned the war. This prince, though he kept aloof from the confederacy of his countrymen, with an indifference which seemed to argue at once a deficiency of patriotism and a want of sound policy, was, nevertheless, found to maintain the contest for his independence with far greater skill and bravery than any prince whom the British arms had opposed in India.

The power and resources of Holkar had gradually been increased, like that of the other chiefs, by the introduction of European officers into his army, and by an improved system of discipline which was thus established. Thus formidable itself, his power was rendered almost inassailable, from the nature of his country, which is uncommonly mountainous, and, during the rains, impassable from jungles and morasses. His skill in maintaining the predatory warfare, so congenial to a Mahratta army, was far superior to that of the other chiefs; whose experience had so fully taught him the danger of risking any regular engagement with European troops. Thus, although his territories were invaded on all sides by detachments of the company's forces, he constantly eluded their attacks; and by the singular rapidity of his movements, he was enabled suddenly to assemble almost his whole force, and overpower whatever detachments he might find at a distance from support. In this situation, the troops under Colonel Monson were surprised. This officer had marched against his capital Indoor, in concert with Colonel Murray, who had reached the place from Bombay, and captured it without much opposition. His less fortunate coadjutor, however, after being betrayed by his guides and deserted by a part of his troops, was attacked by a superior force under Holkar himself, before which he was forced to retreat towards Agra, through a country impassable from the rains, and destitute of provisions. After several disastrous conflicts, during a retreat of seven weeks, which degenerated into a flight, the greater part of his guns, and the whole of the baggage and military stores, were lost. A few only of the troops reached Agra at midnight, in a state of extreme distress; the greater part had been overtaken in their flight, and were either massacred, or cruelly mutilated, by their ferocious pursuers.

Colonel Willot of the Bengal artillery was almost equally unsuccessful in an attack which he had planned against a strong post in the interior: he failed in the attempt, and soon after died of the wounds he had received. It was in Bundelcund, and the country of the Rohillas, that Holkar received the most considerable checks, which produced a reverse of fortune. From both these territories he was completely driven by Lieutenant-colonel Fawcet and General Smith. India.

Parties of his cavalry had been repeatedly defeated by Lord Lake: but the rapidity of their movements as often saved them from destruction; and it was not till the decisive battle of Deeg, on the 13th of November, that the main strength of this enterprising chief was completely broken. At this place his army, trusting to the great strength of its position, behind successive ranges of batteries, was induced to hazard a general action. From these different batteries, which extended to the depth of two miles, they were successively driven by the gallant General Frazer, who had the credit of forcing a post which had been deemed impregnable; and which at this period was defended by 24 battalions of infantry, and 150 pieces of cannon.

In this brilliant achievement the general was wounded in the leg, and soon after was obliged to be carried off the field. The completion of the victory thus fell to Colonel Monson, who now saw complete vengeance inflicted for his past disasters, and for the unexampled cruelty of his enemy; 2000 of whom were killed, either in the battle or during the retreat. An immense number was wounded, and among those many considerable chiefs; while 87 pieces of cannon fell into his hands, which partly consisted of the same guns which he had himself lost during his disastrous retreat to Agra.

Had Holkar confided merely to his effective force in the field, his cause might have now been regarded as desperate. His boldness, however, and his unexampled success, had gained him the support of several of the native princes. Among these he had seduced the rajah of Bhurtpore, an ally of the British, and the chief of the celebrated cast of the Jauts, the most warlike tribe in upper India. General Lake was therefore obliged to concentrate his army, and to employ it in the reduction of Bhurtpore, a fortress which experience has proved to have been the strongest and most impregnable in the whole peninsula. While thus employed, the dispersed troops of Holkar had time to rendezvous in distant quarters; and were successful in cutting off his supplies of provisions, and in plundering the surrounding districts, by that predatory mode of warfare, for which the Mahrattas have always been celebrated.

The reduction of Bhurtpore, thus defended by the indefatigable efforts of Holkar, by its intrepid garrison, and its own natural strength, proved the most arduous enterprise which the British troops had ever undertaken in Asia. The success of the besieged in repelling four different assaults, animated them with fresh courage and intrepidity. The rajah and his whole tribe were united by the ties of blood, as well as of civil authority. They had claim to a high *cast* among the natives, which they knew must be forfeited for ever by unconditional submission: Unfortunately these were the only terms which General Lake, in the peremptory instructions which were given for its reduction, was permitted to accept. The rajah, therefore, having collected in the

India. the fort, his women, his children, and his treasures, resolved to bury them all with himself under its ruins, rather than submit to terms which were deemed as disgraceful to his religion and his rank, as they were mortifying to his feelings as a soldier.

Compelled by the orders of his superior, and undaunted by all the past disasters which the troops had already suffered, General Lake resolved to hazard another attempt. In the account given of it in his dispatch to the governor-general, dated 22d February, he observes, that "it appeared our failure on the 20th was to be accounted for, in a great measure, by the occurrence of unexpected accidents and delays, as part of the corps who formed the storming party had surmounted the principal difficulty, and had nearly gained the summit of the bastion; where, I was informed a few hours more battering would make the ascent perfectly easy. I determined to make another attempt yesterday.

"The party for this service consisted of the whole European force, and the two battalions of the native infantry of the Bengal army; and the greater part of his majesty's 55th and 86th regiments, the grenadier battalion, and the flank companies of the 1st battalion 3d regiment, from the Bombay division. The whole moved on to the attack about three o'clock in the afternoon, under the command of the honourable Brigadier Monson. The troops, most confident of success, commenced the attack, and persevered in it for a considerable time, with the most determined bravery; but their utmost exertions were not sufficient to enable them to gain the top of the breach. The bastion, which was the point of attack, was extremely steep; the resistance opposed to them was vigorous, and as our men could only mount by small parties at a time, the advantages were very great on the side of the enemy. Discharges of grape, logs of wood, and pots filled with combustible materials, immediately knocked down those who were ascending; and the whole party, after having engaged in an obstinate contest for two hours, and suffering very severe loss, was obliged to relinquish the attempt, and to retire to our trenches." The loss of the British army in this last assault, and that of the 20th, amounted to 300 killed, and 1564 wounded: its whole loss during the different attacks, amounted to upwards of 3000 of the bravest of our troops; while the unconditional surrender of the place, though the ultimate object of all these perilous attempts, was never attained. India.

The rajah, however, again proposed the terms he had formerly offered; and consented to pay three lacks of rupees to the army, and the expences of the war. Hostages were given for the regular discharge of these sums, at different instalments. Thus the last prince in India who resisted the British arms, was found to have made the most glorious defence of his independence, and to have secured for himself the most honourable terms. Holkar himself, after having been often beaten, was at last deserted by almost the whole of his troops, and was obliged to escape with a retinue so scanty, as was hardly sufficient for the protection of his person. Nor did this daring and magnanimous prince deign to render submission, or to sue for peace, till the marquis of Wellesly had returned to Europe; till he had beheld the downfall of all the leading men of his nation; and till, like another Galgacus, he had secured to himself the honour of being the last prince who had dared to uphold the standard of independence in his native country. Thus ended the contest between the British government and the Mahratta states;—a combination of military chiefs who had suddenly emerged from obscurity, and risen to the highest rank among the native powers. For the more recent history of the British empire in Hindostan, see the article INDIA, in the SUPPLEMENT.

INDIA Company. See COMPANY.

INDIA Rubber. See CAOUTCHOUC.

IND

Indian || Indictment.

INDIAN, in a general sense, denotes any thing belonging to the Indies, East or West.

INDIAN Berry. See MENISPERMUM,
INDIAN Bread. See JATROPHA,
INDIAN Corn, or *Maize.* See ZEA,
INDIAN Cresses. See TROPÆOLUM,
INDIAN Fig. See CACTUS,
INDIAN Pagod-tree. See FICUS,
} BOTANY *Index.*

INDIAN Ink. See INK.

INDIAN Reed. See CANNA, BOTANY *Index.*

INDICATION, in *Physic*, whatever serves to direct the physician how to act.

INDICATIVE, in *Grammar*, the first mood or manner of conjugating a verb, by which we simply affirm, deny, or ask something: as, *amant*, "they love;" *non amant*, "they do not love;" *amant ne?* "do they love?" See GRAMMAR.

INDICTION, in *Chronology*, a cycle of 15 years. See CYCLE.

INDICTMENT, in *Law*, one of the modes of prosecuting an offender. See PROSECUTION.

In English law, it is a written accusation of one or more persons of a crime or misdemeanor, preferred to, and presented upon oath by, a grand jury. To this end, the sheriff of every county is bound to return to every session of the peace, and every commission of *oyer* and *terminer*, and of general gaol-delivery, twenty-four good and lawful men of the county, some out of every hundred, to inquire, present, do, and execute all those things, which on the part of our lord the king shall then and there be commanded them. They ought to be freeholders; but to what amount is uncertain: which seems to be *casus omissus*, and as proper to be supplied by the legislature as the qualifications of the petit jury; which were formerly equally vague and uncertain, but are now settled by several acts of parliament. However, they are usually gentlemen of the best figure in the county. As many as appear upon this pannel, are sworn upon the grand jury, to the amount of twelve at the least, and not more than twenty-three; that twelve may be a majority. Which number, as well as the constitution itself, we find exactly described so early as the laws of King Ethelred: *Excant seniores duodecim thani, et præfectus cum eis, ut jurent* Indictment. *Blackst. Comment.* Wilk, *LL. Ann. Let.* 117.

Indictment. *jurent super sanctuarium quod eis in manus datur, quod nolint ullum innocentum accusare, nec aliquem noxium celare.* In the time of King Richard I. (according to Hoveden), the process of electing the grand jury, ordained by that prince, was as follows: Four knights were to be taken from the county at large, who chose two more out of every hundred; which two associated to themselves ten other principal freemen, and those twelve were to answer concerning all particulars relating to their own district. This number was probably found too large and inconvenient; but the traces of this institution still remain, in that some of the jury must be summoned out of every hundred. This grand jury are previously instructed in the articles of their inquiry, by a charge from the judge who presides upon the bench. They then withdraw to sit and receive indictments, which are preferred to them in the name of the king, but at the suit of any private prosecutor; and they are only to hear evidence on behalf of the prosecution; for the finding of an indictment is only in the nature of an inquiry or accusation, which is afterwards to be tried and determined; and the grand jury are only to inquire upon their oaths, whether there be sufficient cause to call upon the party to answer it. A grand jury, however, ought to be thoroughly persuaded of the truth of an indictment, so far as their evidence goes; and not to rest satisfied merely with remote probabilities; a doctrine that might be applied to very oppressive purposes.

The grand jury are sworn to inquire only for the body of the county, *pro corpore comitatus;* and therefore they cannot regularly inquire of a fact done out of that county for which they are sworn, unless particularly enabled by act of parliament. And to so high a nicety was this matter anciently carried, that where a man was wounded in one county, and died in another, the offender was at common law indictable in neither, because no complete act of felony was done in any one of them: but by statute 2d and 3d Edw. VI. c. 24. he is now indictable in the county where the party died. And by statute 2 Geo. II. c. 21. if the stroke or poisoning be in England, and the death upon the sea or out of England, or *vice versa*, the offenders, and their accessories, may be indicted in the county where either the death, poisoning, or stroke, shall happen. And so in some other cases; as particularly, where treason is committed out of the realm, it may be inquired of in any county within the realm, as the king shall direct, in pursuance of statutes 26 Hen. VIII. c. 13.; 33 Hen. VIII. c. 23.; 35 Hen. VIII. c. 2. 5. 6.; Edw. VI. c. 11. And counterfeiters, washers, or minishers, of the current coin, together with all manner of felons and their accessories, may, by statute 26 Hen. VIII. c. 6. (confirmed and explained by 34 and 35 Hen. VIII. c. 26. § 75, 76.) be indicted and tried for those offences, if committed in any part of Wales, before the justices of gaol-delivery and of the peace, in the next adjoining county of England where the king's writ runneth: that is, at present in the county of Hereford or Salop; and not, as it should seem, in the county of Chester or Monmouth: the one being a county palatine where the king's writ did not run; and the other a part of Wales, in 26 Hen. VIII. Murders also, whether committed in England, or in foreign parts, may, by virtue of the statute 33 Hen. VIII. c. 23. be inquired of and tried by the king's special commission in any shire or place in the kingdom. By statute 10 and 11 W. III. c. 25. all robberies, and other capital crimes, committed in Newfoundland, may be inquired of and tried in any county in England. Offences against the black act, 9 Geo. I. c. 22, may be inquired of and tried in any county of England, at the option of the prosecutor. So felonies, in destroying turnpikes, or works upon navigable rivers, erected by authority of parliament, may, by statutes 8 Geo. II. c. 20. and 13 Geo. III. c. 84. be inquired of and tried in any adjacent county. By statute 26 Geo. II. c. 19. plundering or stealing from any vessel in distress or wrecked, or breaking any ship contrary to 11 Ann. statute 2. c. 18. may be prosecuted either in the county where the fact is committed, or in any county next adjoining; and if committed in Wales, then in the next adjoining English county: by which is understood to be meant, such English county as, by the statute 26 Hen. VIII. above mentioned, had before a concurrent jurisdiction of felonies committed in Wales. Felonies committed out of the realm, in burning or destroying the king's ships, magazines, or stores, may, by statute 12 Geo. III. c. 24. be inquired of and tried in any county of England, or in the place where the offence is committed. By statute 13 Geo. III. c. 63. misdemeanors committed in India may be tried upon information or indictment in the court of king's bench in England; and a mode is marked out for examining witnesses by commission, and transmitting their deposition to the court. But, in general, all offences must be inquired into, as well as tried, in the county where the fact is committed. Yet if larceny be committed in one county, and the goods carried into another, the offender may be indicted in either: for the offence is complete in both. Or he may be indicted in England for larceny in Scotland, and carrying the goods with him into England, or *vice versa;* or for receiving in one part of the united kingdom goods that have been stolen in another. But for robbery, burglary, and the like, he can only be indicted where the fact was actually committed: for though the carrying away and keeping of the goods is a continuation of the original taking, and is therefore larceny in the second county, yet it is not a robbery or burglary in that jurisdiction. And if a person be indicted in one county for larceny of goods originally taken in another, and be thereof convicted, or stands mute, he shall not be admitted to his clergy; provided the original taking be attended with such circumstances as would have ousted him of his clergy by virtue of any statute made previous to the year 1691. Indictment.

When the grand jury have heard the evidence, if they think it a groundless accusation, they used formerly to endorse on the back of the bill, *Ignoramus;* or, We know nothing of it: intimating, that though the facts might possibly be true, that truth did not appear to them. But now they assert in English more absolutely, *Not a true bill;* or (which is the better way) *Not found;* and then the party is discharged without farther answer. But a fresh bill may afterwards be preferred to a subsequent grand jury. If they are satisfied of the truth of the accusation, they then indorse upon it, "A true bill;" anciently, *Billa vera.* The indictment is then said to be found, and the party stands indicted. But to find a bill, there must at least twelve.

Indictment. twelve of the jury agree: for so tender is the law of England of the lives of the subjects, that no man can be convicted at the suit of the king of any capital offence, unless by the unanimous voice of twenty-four of his equals and neighbours; that is, by twelve at least of the grand jury, in the first place, assenting to the accusation; and afterwards by the whole petit jury of twelve more, finding him guilty upon his trial. But if twelve of the grand jury assent, it is a good presentment, though some of the rest disagree. And the indictment, when so found, is publicly delivered into court.

Indictments must have a precise and sufficient certainty. By statute 1 Hen. V. c. 5. all indictments must set forth the Christian name, surname, and addition of the state and degree, mystery, town, or place, and the county of the offender; and all this to identify his *person*. The *time* and *place* are also to be ascertained, by naming the day and township in which the fact was committed: though a mistake in these points is in general not held to be material, provided the *time* be laid previous to the finding of the indictment, and the *place* to be within the jurisdiction of the court; unless where the place is laid, not merely as a *venue*, but as part of the description of the fact. But sometimes the *time* may be very material, where there is any limitation in point of time assigned for the prosecution of offenders; as by the statute 7 Will. III. c. 3. which enacts, that no prosecution shall be had for any of the treasons or misprisions therein mentioned (except an assassination designed or attempted on the person of the king), unless the bill of indictment be found within three years after the offence committed: and, in case of murder, the time of the death must be laid within a year and a day after the mortal stroke was given. The offence itself must also be set forth with clearness and certainty; and in some crimes particular words of art must be used, which are so appropriated by the law to express the precise idea which it entertains of the offence, that no other words, however synonymous they may seem, are capable of doing it. Thus, in treason, the facts must be laid to be done "treasonably, and against his allegiance;" anciently, *proditorie et contra ligeantiæ suæ debitum;* else the indictment is void. In indictments for murder, it is necessary to say that the party indicted "murdered," not "killed" or "slew" the other; which, till the late statute, was expressed in Latin by the word *murdravit*. In all indictments for felonies, the adverb "feloniously," *felonicè*, must be used; and for burglaries also, *burglariter*, or, in English, "burglariously:" and all these to ascertain the intent. In rapes, the word *rapuit*, or "ravished," is necessary, and must not be expressed by any periphrasis, in order to render the crime certain. So in larcenies also, the words *felonicè cepit et asportavit*, "feloniously took or carried away," are necessary to every indictment; for these only can express the very offence. Also, in indictments for murder, the length and depth of the wound should in general be expressed, in order that it may appear to the court to have been of a mortal nature: but if it goes through the body, then its dimensions are immaterial, for that is apparently sufficient to have been the cause of the death. Also, where a limb, or the like, is absolutely cut off, there such description is needless. Lastly, in indictments, the *value* of the thing which is the subject or instrument of the offence must sometimes be expressed. In indictments for larcenies this is necessary, that it may appear whether it be grand or petit larceny; and whether entitled or not to the benefit of clergy. In homicides of all sorts it is necessary; as the weapon with which it was committed is forfeited to the king as a deodand. For the manner of process upon an indictment, see PROCESS. Indictment || Indigofera.

INDICTMENT, in *Scots Law*, the name of the summons, or libel, upon which criminals are cited before the court of justiciary to stand trial. See LAW *Index*.

Plea to INDICTMENT. See PLEA.

INDIES, EAST and WEST. See INDIA and AMERICA.

INDIGENOUS, of *indigena*, denotes a native of a country, or that which was originally born or produced in the country where it is found. In this sense, particular species of animals and plants are said to be *indigenous* in the country where they are native, in opposition to EXOTIC.

INDIGESTION, a crudity or want of due coction of the food in the stomach. See DIGESTION.

INDIGETES, a name which the ancients gave to some of their gods.

There are various opinions about the origin and signification of this word. Some pretend it was given to all the gods in general; and others, only to the demigods, or great men deified. Others say, it was given to such gods as were originally of the country, or rather such as were the gods of the country that bore this name; and others again hold it was ascribed to such gods as were patrons and protectors of particular cities. Lastly, others hold *indigetes* to be derived from *inde genitus* or *in loco degens*, or from *inde* and *ago*, for *dego*, "I live, I inhabit;" which last opinion seems the most probable.

In effect it appears, 1. That these *indigetes* were also called *local gods* (*dii locales*), or *topical gods*, which is the same thing. 2. The *indigetes* were ordinarily men deified, who indeed were in effect local gods, being esteemed the protectors of those places where they were deified; so that the second and third opinions are very consistent. 3. Virgil joins *patrii* with *indigetes*, as being the same thing, *Georg.* i. ver. 498. "*Dii patrii, indigetes.*" 4. The gods to whom the Romans gave the name *indigetes* were, Faunus, Vesta, Æneas, Romulus, all the gods of Italy; and at Athens, Minerva, says Servius; and at Carthage, Dido. It is true, we meet with Jupiter *indiges:* but that Jupiter *indiges* is Æneas, not the great Jupiter; as we may see in Livy, lib. i. cap. 3. in which last sense Servius assures us, *indiges* comes from the Latin *in diis ago*, "I am among the gods."

Among these *indigetes* gods, there is none more celebrated, or more extensively worshipped, than HERCULES.

INDIGO, a dye prepared from the leaves and small branches of the *Indigofera Tinctoria*. See the next article.

INDIGOFERA, the INDICO PLANT, a genus of plants belonging to the diadelphia claes; and in the natural method ranking under the 32d order, *Papilionaceæ*. See BOTANY *Index*.

EAST INDIES
English Miles
Longitude East 100 From Greenwich
80
90
110
120
130
Great Sandy Desert
CABUL
PUNJAB
TIBET
CHINA
HINDOOSTAN
Calcutta
Bombay
Madras
Ceylon I.
Maldive Islands
Laccadive Is.
Andamans Islands
Nicobar Is.
Malacca
Siam
Cochin China
Tonkin
Hainan I.
PEKIN
WHANG HAI
YELLOW SEA
SEA OF JAPAN
Nankin
Canton
Formosa I.
Manilla
PHILIPPINE ISLANDS
Luzon
Mindoro
Palawan
Samar I.
Mindanao
Sooloo Archipelago
Borneo
Celebes
Molucca Pass
Java
Java Sea
Banca
Billiton
Sumbawa
Timor
Flores
Aroo
PAPUAN OR NEW GUINEA
Bonin Is.
NORTH PACIFIC OCEAN
SOUTH PACIFIC OCEAN
INDIAN OCEAN
BAY OF BENGAL
Gulf of Siam
Cochin China
Str. of Malacca
Str. of Sunda
Str. of Banca
Str. of Billiton
Str. of Macassar
Str. of Lombock
Str. of Alas
Str. of Ballee
Equatorial Channel
Great Sandy Desert
Published by A. Constable & Co. Edinburgh 1819
Engraved by Sid. Hall, Aurora Str. Bloomsbury

WEST INDIES.
English Miles.
50 100 200 300
Longitude West 70 from Greenwich
85 80 75 65 60
25 20 15 10
Published by A. Constable & Co. Edinburgh 1819
Engraved by Sidn. Hall, Bury St. Bloomsbury
GULF OF MEXICO
FLORIDA
GREAT BAHAMA BANK
NEW PROVIDENCE
HAVANA
CUBA
HISPANIOLA OR HAYTI
JAMAICA
PORTO RICO
ATLANTIC OCEAN
CARIBBEAN SEA
MOSQUITO SHORE
NICARAGUA
COSTA RICA
CARTHAGENA
MAGDALENA
MARACAIBO
CARACAS
CUMANA
VENEZUELA
NEW CUMANA
SOUTH AMERICA
SOUTH SEA
Lake of Maracaibo
Gulf of Darien
Bay of Panama
Virgin Islands
Leeward Islands
Windward Islands
Barbadoes
Martinique
St Lucia
Grenadines
Grenada
Margarita
Tobago
Trinidad
Dominica
Guadalupe
St Christophers
Antigua
Montserrat
Nevis
Barbuda
Anguilla or Snake I.
Tortola
Virgin Gorda
Bahama Islands
Great Caymen
Little Caymen
Cayques
Turks Islands
Mouth of the Orinoco

Indigofera. This plant requires a smooth rich soil, well tilled, and not too dry. The seed of it, which, as to figure and colour, resembles gunpowder, is sown in little furrows that are about the breadth of the hoe, two or three inches deep, at a foot's distance from each other, and in as straight a line as possible. Continual attention is required to pluck up the weeds, which would soon choke the plant. Though it may be sown in all seasons, the spring is commonly preferred. Moisture causes this plant to shoot above the surface in three or four days. It is ripe at the end of two months. When it begins to flower, it is cut with pruning-knives; and cut again at the end of every six weeks, if the weather is a little rainy. It lasts about two years, after which term it degenerates; it is then plucked up, and planted afresh. As this plant soon exhausts the soil, because it does not absorb a sufficient quantity of air and dew to moisten the earth, it is of advantage to the planter to have a vast space which may remain covered with trees, till it becomes necessary to fell them in order to make room for the indigo.

Indigo is distinguished into two kinds, the *true* and the *bastard*. Though the first is sold at a higher price on account of its superiority, it is usually advantageous to cultivate the other, because it is heavier. The first will grow in many different soils; the second succeeds best in those which are most exposed to the rain. Both are liable to great accidents. Sometimes the plant becomes dry, and is destroyed by an insect frequently found on it; at other times, the leaves, which are the valuable part of the plant, are devoured in the space of 24 hours by caterpillars. This last misfortune, which is but too common, has given occasion to the saying, "that the planters of indigo go to bed rich, and rise in the morning totally ruined."

This production ought to be gathered in with great precaution, for fear of making the farina that lies on the leaves, and is very valuable, fall off by shaking it. When gathered, it is thrown into the steeping-vat, which is a large tub filled with water. Here it undergoes a fermentation, which in 24 hours at furthest is completed. A cock is then turned to let the water run into the second tub, called the *mortar* or *pounding-tub*. The steeping-vat is then cleaned out, that fresh plants may be thrown in; and thus the work is continued without interruption.

The water which has run into the pounding-tub is found impregnated with a very subtile earth, which alone constitutes the dregs or blue substance that is the object of this process, and which must be separated from the useless salt of the plant, because this makes the dregs swim on the surface. To effect this, the water is forcibly agitated with wooden buckets, that are full of holes and fixed to a long handle. This part of the process requires the greatest precautions. If the agitation be discontinued too soon, the part that is used in dyeing, not being sufficiently separated from the salt, would be lost. If, on the other hand, the dye were to be agitated too long after the complete separation, the parts would be brought together again, and form a new combination; and the salt reacting on the dregs would excite a second fermentation, that would alter the dye, spoil its colour, and make what is called *burnt indigo*. These accidents are prevented by a close attention to the least alterations that the dye undergoes, and by the precaution which the workmen take to draw out a little of it from time to time in a clean vessel. When they perceive that the coloured particles collect by separating from the rest of the liquor, they leave off shaking the buckets, in order to allow time to the blue dregs to precipitate to the bottom of the tub, where they are left to settle till the water is quite clear.—Holes made in the tub, at different heights, are then opened one after another, and this useless water is let out. Indigofera, Individual.

The blue dregs remaining at the bottom having acquired the consistence of a thick muddy liquid, cocks are then opened, which draw it off into the settler. After it is still more cleared of much superfluous water in this third and last tub, it is drained into sacks; from whence, when water no longer filters through the cloth, this matter, now become of a thicker consistence, is put into chests, where it entirely loses its moisture. At the end of three months the indigo is fit for sale.

It is used, in washing, to give a bluish colour to linen: painters also employ it in their water-colours; and dyers cannot make fine blue without indigo. The ancients procured it from the East Indies; in modern times, it has been transplanted into America. The cultivation of it, successively attempted at different places, appears to be fixed at Carolina, St Domingo, and Mexico. That which is known under the name of *Guatimala* indigo, from whence it comes, is the most perfect of all.

There are two kinds of indigo prepared in the East Indies, particularly on the coast of Coromandel, at Pondicherry, &c. Of these the worst kind is used for giving the body of colour to the dyed substance, the other being employed only to give it a gloss afterwards. The finest is prepared on the coast of Agra, Masulipatam, and Ayanoo, but especially in the island of Java; but this last, being extremely dear, is very little used by the dyers. The best ought to float on the surface of water; its colour ought to be a very dark blue inclining to violet, bright and sparkling, especially when broken. It may be tried by dissolving a little in a glass of water: if pure, it will mix equably with the liquor; but if otherwise, will separate and fall to the bottom. Another method of trying the goodness of this substance is by fire; for the pure indigo will be entirely consumed, while the extraneous particles will remain. The pounded indigo is much more subject to adulteration than such as is sold in cakes or tablets; as the ashes or dirt with which it is mixed are very apt to separate from the pale colouring substance when standing in a liquid state, as it must always do before the moisture is evaporated: whence, on breaking a bit of indigo so adulterated, the extraneous matter will be perceived in strata of a different colour.

INDIVIDUAL, a particular being of any species, or that which cannot be divided into two or more beings equal or alike.

The usual division in logic is made into *genera*, or into *genuses*; those *genera* into *species*; and those *species* into *individuals*.

Indivisible || Indulgences.

INDIVISIBLE, among metaphysicians.--A thing is said to be absolutely *indivisible* that is a simple being, and consists of no parts into which it may be divided. Thus, God is *indivisible* in all respects; as is also the human mind; not having extension, or other properties of body.

INDIVISIBLES, in *Geometry*, the elements or principles into which any body or figure may be ultimately resolved; which elements are supposed to be infinitely small: thus, a line may be said to consist of points, a surface of parallel lines, and a solid of parallel and similar surfaces.

INDORSEMENT, in *Law*, any thing written on the back of a deed; as a receipt for money received.

There is likewise an *indorsement*, by way of assignment, on bills of exchange and notes of hand; which is done by writing a person's name on the back thereof.

INDOSTAN, or HINDOSTAN, PROPER INDIA, or *the Empire of the Great Mogul*. See HINDOSTAN.

INDUCTION, in *Logic* and *Rhetoric*, a consequence drawn from several propositions or principles first laid down. See LOGIC; and ORATORY, N° 32.

INDUCTION, in *Law*, is putting a clerk or clergyman in possession of a benefice or living to which he is collated or presented. See the article PARSON.—Induction is performed by a mandate from the bishop to the archdeacon, who usually issues out a precept to other clergymen to perform it for him. It is done by giving the clerk corporal possession of the church, as by holding the ring of the door, tolling a bell, or the like; and is a form required by law, with intent to give all the parishioners due notice and sufficient certainty of their new minister, to whom their tithes are to be paid. This therefore is the investiture of the temporal part of the benefice, as institution is of the spiritual. And when a clerk is thus presented, instituted, and inducted into a rectory, he is then, and not before, in full and complete possession; and is called in law *persona impersonata*, or *parson imparsonnee*.

INDULGENCES, in the Romish church, are a remission of the punishment due to sins, granted by the church, and supposed to save the sinner from purgatory.

According to the doctrine of the Romish church, all the good works of the saints over and above those which were necessary towards their own justification, are deposited, together with the infinite merits of Jesus Christ, in one inexhaustible treasury. The keys of this were committed to St Peter, and to his successors the popes, who may open it at pleasure, and by transferring a portion of this superabundant merit to any particular person, for a sum of money, may convey to him either the pardon of his own sins, or a release for any one in whom he is interested, from the pains of purgatory. Such indulgences were first invented in the 11th century, by Urban II. as a recompense for those who went in person upon the glorious enterprise of conquering the Holy Land. They were afterwards granted to those who hired a soldier for that purpose; and in process of time were bestowed on such as gave money for accomplishing any pious work enjoined by the pope.

Indulgences.

The power of granting indulgences has been greatly abused in the church of Rome. Pope Leo X. in order to carry on the magnificent structure of St Peter's at Rome, published indulgences, and a plenary remission, to all such as should contribute money towards it. Finding the project take, he granted to Albert elector of Mentz, and archbishop of Magdeburg, the benefit of the indulgences of Saxony and the neighbouring parts, and farmed out those of other countries to the highest bidders; who, to make the best of their bargain, procured the ablest preachers to cry up the value of the ware. The form of these indulgences was as follows: "May our Lord Jesus Christ have mercy upon thee, and absolve thee by the merits of his most holy passion. And I by his authority, that of his blessed apostles Peter and Paul, and of the most holy Pope, granted and committed to me in these parts, do absolve thee, first from all ecclesiastical censures, in whatever manner they have been incurred; then from all thy sins, transgressions, and excesses, how enormous soever they may be, even from such as are reserved for the cognizance of the holy see, and as far as the keys of the holy church extend: I remit to you all punishment which you deserve in purgatory on their account; and I restore you to the holy sacraments of the church, to the unity of the faithful, and to that innocence and purity which you possessed at baptism; so that when you die, the gates of punishment shall be shut, and the gates of the paradise of delight shall be opened: and if you shall not die at present, this grace shall remain in full force when you are at the point of death. In the name of the Father, and of the Son, and of the Holy Ghost." *Robertson's Charles V.* vol. ii. 89.

The terms in which the retailers of indulgences described their benefits and the necessity of purchasing them, are so extravagant, that they appear almost incredible. If any man (said they) purchases letters of indulgence, his soul may rest secure with respect to its salvation. The souls confined in purgatory, for whose redemption indulgences are purchased, as soon as the money tinkles in the chest, instantly escape from that place of torment, and ascend into heaven. That the efficacy of indulgences was so great, that the most heinous sins, even if one should violate (which was impossible) the mother of God, would be remitted and expiated by them, and the person be freed both from punishment and guilt. That this was the unspeakable gift of God, in order to reconcile man to himself. That the cross erected by the preachers of indulgences was equally efficacious with the cross of Christ itself. "Lo! the heavens are open; if you enter not now, when will you enter? For twelve pence you may redeem the soul of your father out of purgatory; and are you so ungrateful, that you will not rescue your parent from torment? If you had but one coat, you ought to strip yourself instantly, and sell it, in order to purchase such benefits," &c.

It was this great abuse of indulgences that contributed not a little to the first reformation of religion in Germany, where Martin Luther began first to declaim against the preachers of indulgences, and afterwards against indulgences themselves: but since that time the popes have been more sparing in the exercise of this power: however, they still carry on a great trade

Indulgences || Inebriants.

trade with them to the Indies, where they are purchased at two rials a-piece, and sometimes more.

The pope likewise grants indulgences to persons at the point of death; that is, he grants them, by a brief, power to choose what confessor they please, who is authorised thereby to absolve them from all their sins in general.

INDULT, in the church of Rome, the power of presenting to benefices granted to certain persons by the pope. Of this kind is the indult of kings and sovereign princes in the Romish communion, and that of the parliament of Paris granted by several popes. By the concordat for the abolition of the pragmatic sanction, made between Francis I. and Leo X. in 1516, the French king has the power of nominating to bishoprics, and other consistorial benefices, within his realm. At the same time, by a particular bull, the pope granted him the privilege of nominating to the churches of Brittany and Provence. In 1648 Pope Alexander VIII. and in 1668 Clement IX. granted the king an indult for the bishoprics of Metz, Toul, and Verdun, which had been yielded to him by the treaty of Munster; and in 1668 the same Pope Clement IX. granted him an indult for the benefices in the counties of Rousillon, Artois, and the Netherlands. The cardinals likewise have an indult granted them by agreement between Pope Paul IV. and the sacred college in 1555, which is always confirmed by the popes at the time of their election. By this treaty the cardinals have the free disposal of all the benefices depending on them, and are empowered likewise to bestow a benefice *in commendam.*

INDULTO, a duty, tax, or custom, paid to the king of Spain for all such commodities as are imported from the West Indies in the galleons.

INDUS, a large river of Asia, which rises in the mountains which separate Tartary from India, and discharges itself into the Indian ocean. See HINDOSTAN and INDIA.

INEBRIANTS, are defined to be such things as affect the nerves in a particular and agreeable manner, and through them alter and disturb the functions of the mind. They are properly divided into native and artificial; the former chiefly in use among the oriental and other nations, the latter principally throughout Europe.

Natural Inebriants, are, 1. Opium; in use all over the east, and of which the Turks, through custom, swallow a drachm. 2. Peganum harmala, Syrian rue. The seeds are sold in Turkey for this purpose; and with these, as Bellonius relates, the Turkish emperor Solyman kept himself intoxicated. 3. Maslac of the Turks, or bangue of the Persians; prepared from the dust of the male-flower of hemp, or from the leaves. 4. Bangue of the Indians, from the leaves of the hibiscus sabdariffa. 5. Seeds of various species of the datura, or thorny apple. 6. Pinang, or betel of the Indians. 7. Roots of black henbane. 8. The hyoscyamus physaloides. 9. Berries of the deadly nightshade. 10. Leaves of millfoil, are used by the Dalekarlians to render their beer intoxicating. 11. Tobacco, and several others less material are mentioned; such as clary, saffron, and darnel.

Artificial Inebriants, are fermented liquors from farinaceous seeds; wines, and spirits drawn by distillation. With these is ranked the nectar of the gods, and the anodyne medicine of Homer, commonly called *nepenthes;* and the spells by which Medea and Circe produced their inchantments. Inebriants || Infancy.

INERTIA *of* MATTER, in *Philosophy*, is defined by Sir Isaac Newton to be a passive principle by which bodies persist in their motion or rest, receive motion in proportion to the force impressing it, and resist as much as they are resisted. It is also defined by the same author to be a power implanted in all matter, whereby it resists any change endeavoured to be made in its state. See MECHANICS.

INESSE is applied to things which are actually existing.

Authors make a difference between a thing *in esse*, and a thing *in posse:* a thing that is not, but may be, they say is *in posse*, or *potentia;* but a thing apparent and visible, they say is *in esse*, that is, has a real being *eo instanti;* whereas the other is casual, and at best but a possibility.

INFALISTACIO, an ancient punishment of felons, by throwing them among the rocks and sands, customarily used in port-towns. It is the opinion of some writers, that *infalistatus* did imply some capital punishment, by exposing the malefactor upon the sand till the next tide carried him away; of which custom, it is said, there is an old tradition. However, the penalty seems to take its name from the Norman *falese*, or *falesia*, which signified not the sands, but the rocks and cliffs adjoining, or impending on the sea-shore. *Commisit feloniam ob quam fuit suspensus, utlegatus, vel alio modo morti damnatus*, &c. *vel apud Dover* infalistatus, *apud Southampton submersus*, &c.

INFALLIBLE, something that cannot err, or be deceived.

One of the great controversies between the Protestants and Papists, is the infallibility which the latter attribute to the pope; though, in fact, they themselves are not agreed on that head, some placing this pretended infallibility in the pope and a general council.

INFAMY, in *Law*, is a term which extends to forgery, perjury, gross cheats, &c. by which a person is rendered incapable of being a witness or juror, even though he is pardoned for his crimes.

INFANCY, the first part of life.—Fred. Hoffman says, that the human species are *infants* until they begin to talk, and *children* to the age of puberty.—Anatomy discovers to us, that during infancy there is much imperfection in the human frame; e. g. its parts are disproportioned, and its organs incapable of those functions which in future life they are designed to perform. The head is larger in proportion to the bulk of the body than that of an adult. The liver and pancreas are much larger in proportion than in advanced life; their secretions are more in quantity also. The bile is very inert; the heart is stronger and larger than in future life; the quantity of blood sent through the heart of an infant, in a given time, is also more in proportion than in adults. Though these circumstances have their important usefulness, yet the imperfection attending them subjects this age to many injuries and dangers from which a more perfect state is

Infancy, Infant.

exempted. Dr Percival observes, in his *Essays Med. and Exp.* that of all the children who are born alive, two-thirds do not live to be two years old.

Infants have a larger proportion of brain than adults, hence are most subject to nervous disorders; and hence the diagnostics of diseases are in many respects obscure or uncertain, as particularly those taken from the pulse, which, from the irritability of the tender bodies of infants, is suddenly affected by a variety of accidents too numerous, and seemingly too trivial, to gain our attention. However, no very great embarrassment arises to the practitioner from hence: for the disorders in this state are generally acute, less complicated than those in adults, and are more easily discovered than is generally apprehended.

INFANT, denotes a young child. See INFANCY.

INFANTS, among the Jews, Greeks, and Romans, were swaddled as soon as they were born, in a manner similar to that practised by the moderns. The Jews circumcised and named their infant children on the 8th day from the birth. Upon the birth of a son, the Grecians crowned their doors with olives—of a daughter, with wool. The infant was washed in warm water, and anointed with oil—by the Spartans with wine; it was then dressed, and laid in a basket, or on a shield if the father was a warrior, particularly amongst the Spartans. At five days old they ran with it round the fire, and the mother's relations sent presents. The Greeks named their children on the tenth day, the Romans on the ninth: Their naming was attended with sacrifices and other demonstrations of joy. The maternal office of suckling their own children was never declined, when circumstances would permit. How much different is this from the unnatural delicacy observed by modern mothers, a delicacy which to the child is cruelty! The 40th day was a day of solemnity for the mother. The names of children were registered both by the Greeks and Romans. See REGISTER.

For an account of the custom of exposing infants, see EXPOSING.

Infants were kept from crying in the streets by means of a sponge soaked in honey. Nurses had also their bugbears and terrible names to frighten the children into peace:—The figure with which they were principally intimidated was Μορμολυκειον, a sort of rawhead and bloody bones.

INFANT, in *Law*, is a person under 21 years of age; whose capacities, incapacities, and privileges, are various.

1. In *criminal* matters. The law of England does in some cases privilege an infant under the age of 21, as to common misdemeanors; so as to escape fine, imprisonment, and the like: and particularly in the cases of omission, as not repairing a bridge, or a high way, and other similar offences; for, not having the command of his fortune till the age of 21, he wants the capacity to do those things which the law requires. But where there is any notorious breach of the peace, a riot, battery, or the like, (which infants when full-grown are at least as liable as others to commit); for those, an infant above the age of 14 is equally liable to suffer as a person of the full age of 21.

Blackst. Comment.

With regard to capital crimes, the law is still more minute and circumspect; distinguishing with greater nicety the several degrees of age and discretion. By the ancient Saxon law, the age of twelve years was established for the age of possible discretion, when first the understanding might open; and from thence till the offender was 14, it was *ætas pubertati proxima*, in which he might, or might not, be guilty of a crime, according to his natural capacity or incapacity. This was the dubious stage of discretion; but, under twelve, it was held, that he could not be guilty in will, neither after fourteen could be supposed innocent, of any capital crime which he in fact committed. But by the law, as it now stands, and has stood at least ever since the time of Edward III. the capacity of doing ill, or contracting guilt, is not so much measured by years and days, as by the strength of the delinquent's understanding and judgment. For one lad of 11 years old may have as much cunning as another of 14; and in these cases our maxim is, that *malitia supplet ætatem*. Under seven years of age, indeed, an infant cannot be guilty of felony; for then a felonious discretion is almost an impossibility in nature: but at eight years old, he may be guilty of felony. Also, under 14, though an infant shall be *prima facie* adjudged to be *doli incapax*, yet if it appear to the court and jury that he was *doli capax*, and could discern between good and evil, he may be convicted and suffer death. Thus a girl of 13 has been burnt for killing her mistress: and one boy of ten, and another of nine years old, who had killed their companions, have been sentenced to death, and he of ten years actually hanged; because it appeared upon their trials, that the one hid himself, and the other hid the body he had killed; which hiding manifested a consciousness of guilt, and a discretion to discern between good and evil. And there was an instance in the last century, where a boy of eight years old was tried at Abington for firing two barns; and it appearing that he had malice, revenge, and cunning, he was found guilty, condemned, and hanged accordingly. Thus also, in very modern times, a boy of ten years was convicted on his own confession of murdering his bedfellow; there appearing in his whole behaviour plain tokens of a mischievous disposition; and, as the sparing this boy merely on account of his tender years might be of dangerous consequence to the public, by propagating a notion that children might commit such atrocious crimes with impunity, it was unanimously agreed by all the judges, that he was a proper subject of capital punishment. But, in all such cases, the evidence of that malice, which is to supply age, ought to be strong and clear beyond all doubt and contradiction.

Infant.

2. In *civil* matters. The ages of male and female are different for different purposes. A male at 12 years old may take the oath of allegiance; at 14 is at the years of discretion, and therefore may consent or disagree to marriage, may choose his guardian, and, if his discretion be actually proved, may make his testament of his personal estate; at 17 may be an executor; and at 21 is at his own disposal, and may aliene his land, goods, and chattels. A female also at seven years of age may be betrothed or given in marriage; at nine is entitled to dower; at 12 is at years of maturity, and therefore may consent or disagree to marriage, and, if proved to have sufficient discretion, may bequeath her personal estate; at 14 is at years of legal discretion, and may choose a guardian; at 17 may be executrix; and at 21

may

Infant. may dispose of herself and her lands. So that full age in male or female is 21 years, which age is completed on the day preceding the anniversary of a person's birth; who till that time is an infant, and so styled in law. Among the ancient Greeks and Romans, women were never of age, but subject to perpetual guardianship, unless when married, *nisi convenissent in manum viri;* and when that perpetual tutelage wore away in process of time, we find that, in females as well as males, full age was not till 25 years. Thus by the constitution of different kingdoms, this period, which is merely arbitrary, and *juris positivi*, is fixed at different times. Scotland agrees with England in this point; (both probably copying from the old Saxon constitutions on the continent, which extended the age of minority *ad annum vigesimum primum, et eo usque juvenes sub tutelam reponunt*): but in Naples persons are of full age at 18; and in France, with regard to marriage, not till 30; and in Holland at 25.

The very disabilities of infants are privileges; in order to secure them from hurting themselves by their own improvident acts. An infant cannot be sued but under the protection, and joining the name, of his guardian; for he is to defend him against all attacks as well by law as otherwise: but he may sue either by his guardian, or *prochein amy*, his next friend who is not his guardian. This *prochein amy* may be any person who will undertake the infant's cause; and it frequently happens, that an infant, by his *prochein amy*, institutes a suit in equity against a fraudulent guardian.

With regard to estates and civil property, an infant hath many privileges. In general, an infant shall lose nothing by nonclaim, or neglect of demanding his right; nor shall any other *laches* or negligence be imputed to an infant, except in some very particular cases.

It is generally true, that an infant can neither aliene his lands, nor do any legal act, nor make a deed, nor indeed any manner of contract, that will bind him. But still to all these rules there are some exceptions: part of which were just now mentioned in reckoning up the different capacities which they assume at different ages: and there are others, a few of which it may not be improper to recite, as a general specimen of the whole. And, first, it is true, that infants cannot aliene their estates; but infant trustees, or mortgagees, are enabled to convey, under the direction of the court of chancery or exchequer or other courts of equity, the estates they hold in trust or mortgage, to such person as the court shall appoint. Also it is generally true, that an infant can do no legal act: yet an infant, who has an advowson, may present to the benefice when it becomes void. For the law in this case dispenses with one rule, in order to maintain others of far greater consequence: it permits an infant to present a clerk (who, if unfit, may be rejected by the bishop), rather than either suffer the church to be unserved till he come of age, or permit the infant to be debarred of his right by lapse to the bishop. An infant may also purchase lands, but his purchase is incomplete; for, when he comes to age, he may either agree or disagree to it, as he thinks prudent or proper, without alleging any reason; and so may his heirs after him, if he dies without having completed his agreement. It is, further, generally true, that an infant, under 21, can make no deed but what is afterwards voidable: yet in some cases he may bind himself apprentice by deed indented or indentures, for seven years; and he may by deed or will appoint a guardian to his children, if he has any. Lastly, it is generally true, that an infant can make no other contract that will bind him: yet he may bind himself to pay for his necessary meat, drink, apparel, physic, and such other necessaries; and likewise for his good teaching and instruction, whereby he may profit himself afterwards. Infant ‖ Infatuate.

INFANTE, and INFANTA, all the sons and daughters of the kings of Spain and Portugal, except the eldest: the princes being called *infantes*, and the princesses *infantas*.

INFANTRY, in military affairs, the whole body of foot soldiers, whether independent companies or regiments.—The word takes its origin from one of the infantas of Spain, who, finding that the army commanded by the king her father had been defeated by the Moors, assembled a body of foot-soldiers, and with them engaged and totally routed the enemy. In memory of this event, and to distinguish the foot-soldiers, who were not before held in much consideration, they received the name of *infantry*.

Heavy-armed INFANTRY, among the ancients, were such as wore a complete suit of armour, and engaged with broad shields and long spears. They were the flower and strength of the Grecian armies, and had the highest rank of military honour.

Light-armed INFANTRY, among the ancients, were designed for skirmishes, and for fighting at a distance. Their weapons were arrows, darts, or slings.

Light INFANTRY, among the moderns, have only been in use since the year 1656. They have no camp equipage to carry, and their arms and accoutrements are much lighter than those of the infantry. Light infantry are the eyes of a general, and the givers of sleep and safety to an army. Wherever there is found light cavalry, there should be light infantry. They should be accustomed to the pace of four miles an hour, as their usual marching pace, and to be able to march at five miles an hour upon all particular occasions. Most of the powers on the continent have light infantry. It is only of late years that light infantry came to be used in the British army: But now every regiment has a company of light infantry, whose station is on the left of the regiment, the right being occupied by the grenadiers.

INFATUATE, to prepossess any one in favour of some person or thing that does not deserve it, so far as that he cannot easily be disabused.—The word *infatuate* comes from the Latin *fatuus*, "fool;" of *fari*, "to speak out," which is borrowed from the Greek φαω, whence φατης, which signifies the same with *vates* in Latin, or *prophet* in English; and the reason is, because their prophets or priests used to be seized with a kind of madness or folly, when they began to make their predictions, or deliver oracles.

The Romans called those persons *infatuati*, who fancied they had seen visions, or imagined the god Faunus, whom they called *Fatuus*, had appeared to them. This word is more generally applied by the moderns to persons who are what the vulgar call *bewitched*, or under some

Infatuate ‖ Infibulation.

same peculiar destiny which it appears impossible for them to shun.

INFECTION, among physicians. See CONTAGION.

INFEFTMENT, in *Scots Law*, the solemnity of the delivery of an heritable subject to the purchaser.

INFERIÆ, sacrifices offered by the Romans to the *Dii Manes*, or the souls of deceased heroes or other illustrious persons, or even any relation or person whose memory was held in veneration. These sacrifices consisted of honey, water, wine, milk, the blood of victims, variety of balsamic unguents, chaplets, and loose flowers. The victims upon these occasions were generally of the smaller cattle, though in ancient times they sacrificed slaves or captives: But what a shocking view does this give us of their sentiments of human nature, as if nothing but murder, cruelty, and human blood, could satisfy or prove acceptable to a human soul! The sacrifices were usually black and barren. The altars on which they were offered were holes dug in the ground.

The honey, water, wine, &c. were used as libations, and were poured on the tombs of children by children, on those of virgins by virgins, and on those of married men by women. The *inferiæ* were offered on the 9th and 30th days after interment amongst the Greeks, and repeated in the month Anthesterion. The whole of this article applies equally to the Greeks and the Romans.

INFIBULATION, in antiquity. It was a custom among the Romans to infibulate their singing boys, in order to preserve their voices: for this operation, which prevented their retracting the prepuce over the glans, and is the very reverse to circumcision, kept them from injuring their voices by premature and preposterous venery; serving as a kind of padlock, if not to their inclinations, at least to their abilities. It appears by some passages in Martial, that a less decent use was made of infibulation among the luxurious Romans: for some ladies of distinction, it seems, took this method of confining their paramours to their own embraces. Juvenal also hints at some such practice. Celsus, a chaste author, says infibulation was sometimes practised for the sake of health, and that nothing destroys it more than the silly practice this operation seems intended to prevent. This practice is not perhaps likely to be revived; if, however, any one who has suffered in his constitution by preposterous venery, should be able to get children, and should be inclined to prevent the same misfortune in them by infibulation, the method of doing it is thus: The skin which is above the glans is to be extended, and marked on both sides with ink, where it is perforated, and then suffered to retract itself. If the marks recur upon the glans, too much of the skin has been taken up, and we must make the marks farther; if the glans remain free from them, they show the proper place for affixing a fibula: then pass a needle and thread through the skin where the marks are, and tie the threads together; taking care to move it every day, until the parts about the perforation are cicatrised: this being effected, take out the thread, and put in the fibula; which the lighter it is the better.

Authors have not determined what the fibula of the ancient surgeons was, though no doubt it was for different purposes. In the present case, the fibula seems to mean a ring of metal, not unlike what the country people put through the noses of swine.

Infibulation ‖ Infidelity

INFIDEL, a term applied to such persons as are not baptized, and that do not believe the truths of the Christian religion. See DEIST.

INFIDELITY, in a general sense, denotes want of faith or belief in regard to any subject or transaction.

Religious INFIDELITY signifies a disbelief of Christianity.

Of all the methods (says an elegant modern essayist*) which the vanity of man has devised with a view to acquire distinction, there is none easier than that of professing a disbelief of the established religion. That which shocks the feelings of those with whom we converse, cannot fail of attracting notice; and as the vain are usually confident, they utter their doubts with an air so oracular and decisive, as induces the simple to think them profoundly wise. Audacity, with little ingenuity, will attract the eyes of spectators, and this will sufficiently answer the purpose of many among the professed unbelievers. One might be diverted, if one were not hurt, at seeing a circle of silly admirers, gaping and fixing their eyes on some half-learned and impudent prater, who throws out oblique insinuations against the Bible, the clergy, or the sacrament. These are fertile topics of wit and ingenuity; but it might mortify the vanity of some very vain writers and talkers, if they were to recollect, what is undoubtedly true, that it is a species of wit and ingenuity which not only the vilest, but the most stupid and illiterate of mankind, have frequently displayed in all its possible perfection.

* *Knox's Essays*, N° 16.

There is indeed no doubt, but that vanity is one of the principal causes of infidelity. It must be the sole cause of communicating it to others, by writing or conversation. For let us suppose the case of a very humane, judicious, and learned man, entertaining doubts of the truth of Christianity: if he cannot clear his doubts by examination, he will yet recollect that doubts are no certainties; and, before he endeavours to propagate his scepticism, he will ask himself these questions: "Am I quite convinced that what I doubt of cannot possibly be true? If I am convinced of it, am I sure that the publication of my opinions will not do more harm than good? Is not the disturbing of any long-established civil constitution attended with confusion, rebellion, bloodshed, and ruin: And are not the majority of men more strongly attached to the religion than the government of their forefathers? Will it serve my country to introduce discontent of any species? May not those innovations in religion, which discontent may introduce, lead to all the evils which are caused by frenzy and fanaticism? Granting that I were able to make a party formidable enough to crush opposition and to exterminate Christianity, still am I certain that I act, in this instance, like a good member of society? For is not this system, whether well or ill founded, friendly to society? I must confess it; its greatest enemies have acknowledged it. What motive then can induce me to divulge my doubts of its authenticity? Not the good of mankind; for it is already allowed by unbelievers, that the good of mankind is interested in the belief of its divine original. Is it for

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Infidelity.

my own good, and with a view to be convinced? I will not deceive myself: my motive, I suspect, is of another kind; for do I read those books which have been already written to satisfy similar doubts? Nothing but the vanity of appearing to be wiser than my credulous neighbours can induce me to interrupt the happiness of their belief. But vanity of this sort, which tends to disturb society, to injure the national morals, and to rob many thousand individuals of a copious source of sweet and solid comfort, must be pronounced extreme wickedness, even according to the obvious dictates of natural religion. I shall act the part of a good citizen and a good man, by conforming to a system whose beneficial influence I feel and confess, and by endeavouring to acquire a belief in that which has for so many centuries been established, and which promises to soothe me in distress with the sweetest consolations, and to brighten the dismal hour of death, by the hope of a more glorious and happy state of existence. At all events, I shall have the satisfaction of having commanded myself so far, as not to have run the hazard of endangering the welfare of my fellow-creatures, either here or hereafter, by indulging a degree of vanity, which, in a creature so weak and so short-lived as myself, is a folly very inconsistent with the superior wisdom which I seem to arrogate.

"I will venture to repeat (continues our author), that all writers against Christianity, however they may affect even the extremes of benevolence, honour, philosophy, and enlargement of mind, are actuated by vanity and wickedness of heart. Their motives are as mean, selfish, narrow, and in every respect unjustifiable, as the tendency of their writings is mischievous. Their malice is often impotent, through the foolish sophistry of their arguments; but, if ever it be successful, it is highly injurious: and indeed, considering their motives and the probable consequences of their endeavours, the infidel writer is a greater enemy to society, and consequently guiltier, according to all the principles of social union, than the thief or the traitor. Persecution would, however, only promote his cause, and his proper punishment is contempt.

"It is certainly no derogation from the character of a man of sense, to conform, even while he is so unfortunate as to doubt their truth, to the opinions of his country. His conformity will probably lead him to a train of actions and of thought, which, in due time, will induce him to believe. But, if that should not happen, yet he will act, as very wise and very great men have acted, in paying a respectful deference to the avowed conviction of others. The most intelligent and powerful men of ancient Rome, not only appeared to believe a very absurd and hurtful system, but assisted in all its ceremonies as priests. Even Socrates, who evidently entertained some notions adequate to the dignity of the one great and supreme Being, yet thought it was a duty which he owed to his country, so far to conform to the wretched establishment, as to order in his dying words a sacrifice to Æsculapius. This external conformity to the national religion ought not to be confounded with hypocrisy. If indeed it is carried to extremes, or zealously affected, it certainly is very blameable and contemptible deceit; but while it keeps within the bounds of reason and moderation, it ought to be called a decent deference to the opinions of the majority, arising from humility, and from a desire to maintain the tranquillity of the state, and to continue an innocent and useful system, which has, and will always greatly contribute to lessen the quantity and degree both of moral and of natural evil. Infidelity.

"The easiest, after all, or at least the most effectual method of appearing in any character, is really to be what we wish to appear. But belief, you will say, is not in our power, and how can we believe what appears to us incredible? Certainly you cannot while it appears incredible. But let me ask you, whether you have taken any pains to believe, or have at once and at a glance persuaded yourself, that the Christian religion is totally false? It is probable that a great number of sceptical writers never gave themselves the trouble to read those Scriptures which they warmly oppose. They hear objections, they read objections, and they find, that from men of reputed wit and ingenuity the objections often originate. They also wish to be reputed men of wit and ingenuity, and therefore eagerly adopt the language and sentiments of the order. Perhaps the vanity and pride of this class of men will render all attempts to convince them abortive; but to modest doubters, and to those whose good sense and good dispositions lead them to wish to adopt the religion of their country, it may not be useless to suggest advice, with a view to facilitate their conviction.

"The chief thing required is to free themselves from the pride of human reason. Humility (and surely our blindness and imperfections are sufficient to render us humble, if we would be reasonable), humility will open our hearts, and belief will find admission. Sincere endeavours, seconded by prayers, will never fail to help our unbelief. But, alas! a fine, gay, spirited, liberal, and enlarged modern philosopher, would be ashamed to be found on his knees, or with a Testament in his possession. There is scarcely any vicious act, or any vicious book, which would put him so much to the blush.

"A modest well-meaning man might, however, one should think, divest himself of those prejudices which prevent the possibility of belief, by the following soliloquy: 'I find myself placed in a world abounding with evil and misery. Under the immediate pressure of it, I feel my heart inclining, like the needle to the north, by its natural tendency, to the Deity for support. Man, of all animals, is the only one who has the sense of religion. Feeling this distinctive propensity of my nature, I look around to discover to what object, and in what manner, that part of my fellow creatures, who live in the same society with myself, pay their adoration. I find a system of religion already established, and which has been established in the most enlightened countries of the earth near 2000 years. I resolve to examine it. It claims that respect from its antiquity and universality. Many difficulties appear on the first inspection. My reason is often startled, and my belief wavers. But I will not yet give up a point of so serious importance, without further and closer attention to it. I reflect, that 2000 years is a vast space in the age of the world. How many myriads of men like myself have lived and died in the faith during that time! And were all of them fools or hypocrites?

Infidelity ‖ Infinitesimals.

crites? It could not have been. Can the understanding of a poor individual, just come into the world, and hardly knowing where he is, comprehend on iutuition an object of such magnitude, and make the mighty discovery which has escaped millions of the wisest and most learned of mortals? Or, supposing that they all perceived the deception, am I then at last the only honest man who will confess it? I am ashamed to avow such an idea to myself. But yet, if I reject what they received, surely I avow it in the more expressive language of my conduct. Pride, I fear, is the foundation of my scepticism; and humility must form the basis of my belief. I will check my own presumption, and reject the cavils of vain and foolish philosophy. Shall a poor weak creature, who cometh up like a flower, and is cut down, who fleeth as a shadow, and never continueth in one stay, presume to pronounce decisively in that little period, in which he has scarcely time to look about him before he dies, against a system which has strong internal and external evidence of divine original, which is most useful and comfortable, and which has been admitted among a great portion of mankind during almost 20 centuries? No, it is the first wisdom to be humble. Humility will be followed by grace, and grace by faith, and faith by salvation. It plainly appears, that I can lose nothing by belief, but some of those excessive and irregular enjoyments, which would destroy my health and life; but I may possibly gain a glory and a happiness which shall continue to all eternity."

INFINITE, that which has neither beginning nor end: in which sense God alone is infinite.

INFINITE is also used to signify that which has had a beginning, but will have no end, as angels and human souls. This makes what the schoolmen call *infinitum à parte post;* as, on the contrary, by *infinitum à parte ante*, they mean that which has an end, but had no beginning.

INFINITE Quantities. The very idea of magnitudes infinitely great, or such as exceed any assignable quantities, does include a negation of limits; yet if we nearly examine this notion, we shall find that such magnitudes are not equal among themselves, but that there are really, besides infinite length and infinite area, three several sorts of infinite solidity; all of which are *quantitates sui generis*, and that those of each species are in given proportions.

Infinite length, or a line infinitely long, is to be considered either as beginning at a point, and so infinitely extended one way, or else both ways from the same point; in which case the one, which is a beginning infinity, is the one half of the whole, which is the sum of the beginning and ceasing infinity; or, as may be said, of infinity *à parte ante* and *à parte post*, which is analogous to eternity in time and duration, in which there is always as much to follow as is past, from any point or moment of time; nor doth the addition or subduction of finite length, or space of time, alter the case either in infinity or eternity, since both the one or the other cannot be any part of the whole.

INFINITESIMALS, among mathematicians, are defined to be infinitely small quantities.

In the method of infinitesimals, the element, by which any quantity increases or decreases, is supposed to be infinitely small; and is generally expressed by two or more terms, some of which are infinitely less than the rest; which being neglected as of no importance, the remaining terms form what is called the *difference of the proposed quantity*. The terms that are neglected in this manner, as infinitely less than the other terms of the element, are the very same which arise in consequence of the acceleration or retardation of the generating motion, during the infinitely small time in which the element is generated: so that the remaining terms express the elements that would have been produced in that time, if the generating motion had continued uniform: therefore those differences are accurately in the same ratio to each other as the generating motions or fluxions. And hence, though in this method infinitesimal parts of the elements are neglected, the conclusions are accurately true without even an infinitely small error, and agree precisely with those that are deduced by the method by fluxions. See FLUXIONS.

Infinitesimals ‖ Influence.

INFINITIVE, in *Grammar*, the name of one of the moods, which serve for the conjugating of verbs. See GRAMMAR.

INFINITY, the quality which denominates a thing infinite. See METAPHYSICS.

INFIRMARY, a kind of hospital, where the weak and sick are properly taken care of.

INFLAMMABILITY, that property of bodies which disposes them to kindle or catch fire. See CHEMISTRY, N° 336. p. 490.

INFLAMMATION, in *Medicine* and *Surgery*, a redness and swelling of any part of the body, attended with heat, pain, &c. See MEDICINE *Index*.

INFLAMMATION of Oils by concentrated Acids. See CHEMISTRY, N° 876 and 893.

INFLATION, formed from *in* and *flatus;* of *flo*, "I blow;" blowing up, the act of stretching or filling any flaccid or distensible body with a flatulent or windy substance.

INFLECTED RAYS. See *Inflected* RAYS.

INFLECTION, called also *diffraction*, and *deflection*, in *Optics*, is a property of light, by reason of which, when it comes within a certain distance of any body, it will either be bent from it, or towards it; which is a kind of imperfect reflection or refraction. See OPTICS.

INFLECTION, or *Point of* INFLECTION, in the higher geometry, is a point where a curve begins to bend a contrary way.

INFLECTION, in *Grammar*, the variation of nouns and verbs, by declension and conjugation.

INFLUENCE, a quality supposed to flow from the heavenly bodies, either with their light or heat; to which astrologers idly ascribe all sublunary events.

Alchemists also, who to this ascribe the philosophers stone, tells us, that every thing in nature is produced by the influence of the stars, which, in their passage through the atmosphere, imbibe many of its moist parts, the grossest whereof they deposit in the sands and earths where they fall; that these, filtrating through the pores of the earth, descend even to the centre, whence they are driven, by the central fire, back again to the surface; and in their ascent, by a natural kind of sublimation, as they find earths duly disposed, they form natural bodies, as metals, minerals, and vegetables, &c. Thus, it is pretended, that chemistry,

Influence of Informer.

consisting of an artificial imitation of these natural operations, and in applying active principles to passive principles, can form natural bodies, make gold, &c.

INFORMATION, in *Law*, is nearly the same in the crown-office, as what in other courts is called a *declaration*. See PROSECUTION.

Informations are of two sorts; first, those which are partly at the suit of the king, and partly at that of a subject; and secondly, such as are only in the name of the king. The former are usually brought upon penal statutes, which inflict a penalty upon conviction of the offender, one part to the use of the king, and another to the use of the informer. By the statute 31 Eliz. c. 5. no prosecution upon any penal statute, the suit and benefit whereof are limited in part to the king and in part to the prosecutor, can be brought by any common informer after one year is expired since the commission of the offence; nor on behalf of the crown, after the lapse of two years longer; nor, where the forfeiture is originally given only to the king, can such prosecution be had after the expiration of two years from the commission of the offence.

The informations that are exhibited in the name of the king alone, are also of two kinds: first, those which are truly and properly his own suits, and filed *ex officio* by his own immediate officer, the attorney-general: secondly, those in which, though the king is the nominal prosecutor, yet it is at the relation of some private person, or common informer; and they are filed by the king's coroner and attorney in the court of king's bench, usually called the *master of the crown-office*, who is for this purpose the standing officer of the public. The objects of the king's own prosecutions, filed *ex officio* by his own attorney-general, are properly such enormous misdemeanors, as peculiarly tend to disturb or endanger his government, or to molest or affront him in the regular discharge of his royal functions. For offences so high and dangerous, in the punishing or preventing of which a moment's delay would be fatal, the law has given to the crown the power of an immediate prosecution, without waiting for any previous application to any other tribunal: which power, thus necessary, not only to the ease and safety, but even to the very existence, of the executive magistrate, was originally reserved in the great plan of the English constitution, wherein provision is wisely made for the due preservation of all its parts. The objects of the other species of informations, filed by the master of the crown-office upon the complaint or relation of a private subject, are any gross and notorious misdemeanors, riots, batteries, libels, and other immoralities of an atrocious kind, not peculiarly tending to disturb the government (for those are left to the care of the attorney-general), but which, on account of their magnitude or pernicious example, deserve the most public animadversion. And when an information is filed, either thus, or by the attorney-general *ex officio*, it must be tried by a petit jury of the county where the offence arises: after which, if the defendant be found guilty, he must resort to the court for his punishment. See a history and vindication of this mode of prosecution in the work cited on the margin, vol. iv. p. 309—312.

Blackst. Comment.

INFORMER (*informator*) in *Law*, a person that informs against, or prosecutes in any of the king's courts, those that offend against any law or penal statute. See INFORMATION.

Informer Ingenuous.

Informers were very common both in Greece and Rome. Every corner of the streets was pestered with swarms of turbulent rascals, who made it their constant business to pick up stories, and catch at every occasion to accuse persons of credit and reputation: These by the Greeks were called Συκοφάνται; for a more particular account of whom, see the article SYCOPHANT.

Amongst the Romans, informers were of two sorts, *mandatores* and *delatores*. These played into each other's hands; the former marking down such persons as they pretended to have found guilty of any misdemeanor, and the other prosecuting them. What tended to increase the number of these pestilent fellows was, that the informers were entitled to a fourth part of the effects of the person convicted. Wicked princes rewarded and countenanced this mischievous tribe; but Titus set on foot a most diligent search after them, and punished such as he found with death or banishment. Trajan also is praised by Pliny for a similar conduct.

INFRACTION (formed from *in*, and the supine of *frango*, "I break,") a rupture or violation of a treaty, law, ordinance, or the like.

INFRALAPSARII, the name of a sect of predestinarians, who maintain, that God has created a certain number of men only to be damned, without allowing them the means necessary to save themselves, if they would; and they are thus called, because they hold that God's decrees were formed *infra lapsum*, after his knowledge of the fall, and in consequence thereof; in contradistinction to the SUPRALAPSARIANS.

INFRA-SCAPULARIS, in *Anatomy*. See ANATOMY, *Table of the Muscles*.

INFRA-Spinatus, in *Anatomy*. See ANATOMY *ibid.*

INFULA, in antiquity, was a mitre worn by the Roman and Grecian priests upon the head, from which on each side hung a ribband. The covering the head with a mitre was rather a Roman than a Grecian custom, introduced into Italy by Æneas, who covered his head and face at the performance of sacrifice, lest any ill-boding omen should disturb the rites. The infulæ were commonly made of wool, and were not only worn by the priests, but were put upon the horns of the victims, upon the altar and the temple. The infulæ were also called *vittæ*.

INFUNDIBULIFORM, in *Botany*, an appellation given to such monopetalous or one-leaved flowers as resemble a funnel in shape.

INFUSION, in *Pharmacy*, an operation, whereby the virtues of plants are drawn out, by steeping them in some convenient fluid without boiling.

INGELSHEIM, a town of Germany, in the palatinate of the Rhine, remarkable for having been the residence of the emperor; seated on the river Salva, on an eminence, from whence there is a charming prospect. E. Long. 8. 5. N. Lat. 49. 58.

INGENHOUSZ, JOHN, a late eminent natural philosopher. See SUPPLEMENT.

INGENUOUS, in a general sense, signifies *open*, *fair*, and *candid*.

INGENUOUS (*ingenuus*), in Roman antiquity, an appellation given to persons born of free parents, who had never been slaves: for the children of the *liberti*,

Ingenuous || Ingratitude.

or persons who had obtained their liberty, were called *libertini*, not *ingenui;* this appellation of *ingenuus* being reserved for their children, or the third generation.

INGESTA, is used by some authors to express all sorts of aliment taken into the body.

INGLUVIES, the crop or craw of granivorous birds, serving for the immediate reception of the food, where it is macerated for some time before it is transmitted to the true stomach.

INGOLSTADT, a handsome town of Germany, and the strongest in Bavaria, with a handsome church. The university formerly seated here was transferred to Landshut in 1800. It is situated on the Danube, in E. Long. 11. 10. N. Lat. 48. 42.

INGOT, a mass of gold or silver melted down, and cast in a mould, but not coined or wrought.

INGRAFTING, in *Gardening*. See GRAFTING, GARDENING *Index*.

INGRATITUDE, the opposite of gratitude. See GRATITUDE.

Ingratitude is a crime so shameful, that there never was a man found who would own himself guilty of it; and, though too frequently practised, it is so abhorred by the general voice, that to an ungrateful person is imputed the guilt or the capability of all other crimes.

The ungrateful are neither fit to serve their Maker, their country, nor their friends.

Ingratitude perverts all the measures of religion and society, by making it dangerous to be charitable and good natured. (See GRATITUDE). However, it is better to expose ourselves to ingratitude than to be wanting in charity and benevolence.

Great minds, like Heav'n, are pleas'd with doing good;
Though the ungrateful subjects of their favours
Are barren in return.

1. In a little work intitled *Friendly Cautions to Officers*, the following atrocious instance of ingratitude is related. An opulent city in the west of England, little used to have troops with them, had a regiment sent to be quartered there: the principal inhabitants and wealthiest merchants, glad to show their hospitality and attachment to their sovereign, took the first opportunity to get acquainted with the officers, inviting them to their houses, and showing them every civility in their power. This was truly a desirable situation. A merchant, extremely easy in his circumstances, took so prodigious a liking to one officer in particular, that he gave him an apartment in his own house, and made him in a manner absolute master of it, the officer's friends being always welcome to his table. The merchant was a widower, and had only two favourite daughters; the officer in so comfortable a station cast his wanton eyes upon them; and too fatally succeeding, ruined them both. Dreadful return to the merchant's misplaced friendship! The consequence of this ungenerous action was, that all officers ever after were shunned as a public nuisance, as a pest to society: nor have the inhabitants perhaps yet conquered their aversion to a red-coat.

2. We read in Rapin's History, that during Monmouth's rebellion, in the reign of James II. a certain person knowing the humane disposition of one Mrs Gaunt, whose life was one continued exercise of beneficence, fled to her house, where he was concealed and maintained for some time. Hearing, however, of the proclamation, which promised an indemnity and reward to those who discovered such as harboured the rebels, he betrayed his benefactress; and such was the spirit of justice and equity which prevailed among the ministers, that he was pardoned and recompensed for his treachery, while she was burnt alive for her charity! Ingratitude.

3. The following instance is also to be found in the same history.—Humphry Bannister and his father were both servants to and raised by the duke of Buckingham; who being driven to abscond, by an unfortunate accident befalling the army he had raised against the usurper Richard III. he without footman or page retired to Bannister's house near Shrewsbury, as to a place where he had all the reason in the world to expect security. Bannister, however, upon the king's proclamation promising 1000l. reward to him that should apprehend the duke, betrayed his master to John Merton high sheriff of Shropshire, who sent him under a strong guard to Salisbury, where the king then was, and there in the market-place the duke was beheaded. But Divine vengeance pursued the traitor Bannister; for demanding the 1000l. that was the price of his master's blood, King Richard refused to pay it him, saying, "He that would be false to so good a master, ought not to be encouraged." He was afterwards hanged for manslaughter, his eldest son run mad and died in a hog-sty, his second became deformed and lame, and his third son was drowned in a small puddle of water. His eldest daughter was got with child by one of his carters, and his second was seized with a leprosy whereof she died.—*Hist. of Eng.* 8vo. vol. i. p. 304.

The following barbarous instances are from ancient History.

4. When Xerxes king of Persia was at Celene, a city of Phrygia, Pythius, a Lydian, who had his residence in that city, and next to Xerxes was the most opulent prince of those times, entertained him and his whole army with an incredible magnificence, and made him an offer of all his wealth towards defraying the expences of his expedition. Xerxes, surprised and charmed at so generous an offer, had the curiosity to inquire to what a sum his riches amounted. Pythius made answer, that having the design of offering them to his service, he had taken an exact account of them, and that the silver he had by him amounted to 2000 talents (about 255,000l. sterling), and the gold to 4,000,000 of daries (about 1,700,000l. sterling), wanting 7000. All this money he offered him, telling him, that his revenue was sufficient for the support of this household. Xerxes made him very hearty acknowledgments, and entered into a particular friendship with him, but declined accepting his present. The same prince who had made such obliging offers to Xerxes, having desired a favour of him some time after, that out of his five sons who served in his army, he would be pleased to leave him the eldest, in order to be a comfort to him in his old age: the king was so enraged at the proposal, though so reasonable in itself, that he caused the eldest son to be killed before the eyes of his father, giving the latter to understand, that

Vid. Herod. l. vii. c. 38. Seneca, *de Ira*, l. iii. c. 17.

Ingratitude of Ingulphus.

that it was a favour he spared him and the rest of his children. Yet this is the same Xerxes who is so much admired for his humane reflection at the head of his numerous army, "That of so many thousand men, in 100 years time there would not be one remaining; on which account he could not forbear weeping at the uncertainty and instability of human things." He might have found another subject of reflection, which would have more justly merited his tears and affliction, had he turned his thoughts upon himself, and considered the reproaches he deserved for being the instrument of hastening the fatal term to millions of people, whom his cruel ambition was going to sacrifice in an unjust and unnecessary war.

Zonar. Annal. tom. iii. p. 155.

5. Basilius Macedo the emperor, exercising himself in hunting, a sport he took great delight in, a great stag running furiously against him, fastened one of the branches of his horns in the emperor's girdle, and pulling him from his horse, dragged him a good distance, to the imminent danger of his life; which a gentleman of his retinue perceiving, drew his sword and cut the emperor's girdle asunder, which disengaged him from the beast, with little or no hurt to his person. But observe what reward he had for his pains: "He was sentenced to lose his head for putting his sword so near the body of the emperor;" and suffered death accordingly.

INGRESS, in *Astronomy*, signifies the sun's entering the first scruple of one of the four cardinal signs, especially Aries.

INGRIA, a province of the Russian empire, lying on the gulf of Finland, being about 130 miles in length, and 50 in breadth. It abounds in game and fish; and here are a great number of elks, which come in troops from Finland in the spring and autumn. It was conquered by the Czar Peter the Great, and Petersburgh is the capital town. It is bounded by the river Neva, and the golf of Finland, on the north; by Great Novogorod, on the east and south; and by Livonia, on the west.

INGROSSER, or ENGROSSER, in common law, is one who buys up corn growing, or any provisions by wholesale, before the market, to sell again. See FORESTALLING.

It also signifies a clerk who writes records or instruments of law on skins of parchment. See ENGROSSING.

INGUEN, in *Anatomy*, the same with what is otherwise called *groin*.

INGULPHUS, abbot of Croyland, and author of the history of that abbey, was born in London about A. D. 1030. He received the first part of his education at Westminster; and when he visited his father, who belonged to the court of Edward the Confessor, he was so fortunate as to engage the attention of Queen Edgitha. That amiable and learned princess took a pleasnre in examining our young scholar on his progress in grammar, and in disputing with him in logic; nor did she ever dismiss him without some present as a mark of her approbation. From Westminster he went to Oxford, where he applied to the study of rhetoric, and of the Aristotelian philosophy, in which he made greater proficiency than many of his contemporaries. When he was about 21 years of age, he was introduced to William duke of Normandy (who visited the court of England, A. D. 1051), and made himself so agreeable to that prince, that he appointed him his secretary, and carried him with him into his own dominions. In a little time he became the prime favourite of his prince, and the dispenser of all preferments, humbling some, and exalting others, at his pleasure; in which difficult station, he confesseth, he did not behave with a proper degree of modesty and prudence. This excited the envy and hatred of many of the courtiers; to avoid the effects of which, he obtained leave from the duke to go in pilgrimage to the Holy Land. With a company of 30 horsemen, he joined Sigfrid duke of Mentz, who, with many German nobles, bishops, clergy, and others, was preparing for a pilgrimage to Jerusalem. When they were all united, they formed a company of no fewer than 7000 pilgrims. In their way they spent some time at Constantinople, performing their devotions in the several churches. In their passage through Lycia, they were attacked by a tribe of Arabs, who killed and wounded many of them, and plundered them of a prodigious mass of money. Those who escaped from this disaster, at length reached Jerusalem, visited all the holy places, and bedewed the ruins of many churches with their tears, giving money for their reparation. They intended to have bathed in Jordan; but being prevented by the roving Arabs, they embarked on board a Genoese fleet at Joppa, and landed at Brundusium, from whence they travelled through Apulia to Rome. Having gone through a long course of devotions in this city, at the several places distinguished for sanctity, they separated, and every one made the best of his way into his own country. When Ingulph and his company reached Normandy, they were reduced to 20 half-starved wretches, without money, clothes, or horses: A faithful picture of the disastrous journeys into the Holy Land, so common in those times. Ingulph was now so much disgusted with the world, that he resolved to forsake it, and became a monk in the abbey of Fontenelle in Normandy; in which, after some years, he was advanced to the office of prior. When his old master was preparing for his expedition into England, A. D. 1066, he was sent by his abbot, with 100 merks in money, and 12 young men, nobly mounted and completely armed, as a present from their abbey. Ingulph having found a favourable opportunity, presented his men and money to his prince, who received him very graciously; some part of the former affection for him reviving in his bosom. In consequence of this he raised him to the government of the rich abbey of Croyland in Lincolnshire, A. D. 1076, in which he spent the last 34 years of his life, governing that society with great prudence, and protecting their possessions from the rapacity of the neighbouring barons by the favour of his royal master. The lovers of English history and antiquities are much indebted to this learned abbot, for his excellent history of the abbey of Croyland, from its foundation, A. D. 664, to A. D. 1091, into which he hath introduced much of the general history of the kingdom, with a variety of curious anecdotes that are nowhere else to be found. Ingulph died of the gout, at his abbey, A. D. 1109, in the 79th year of his age.

Ingulphus, Inhaler.

INHALER, in *Medicine*, a machine for breathing in warm steams into the lungs, recommended by Mr

Inhaler || Injection.

Mudge in the cure of the catarrhous cough. The body of the instrument holds about a pint; and the handle, which is fixed to the side of it, is hollow. In the lower part of the vessel, where it is soldered to the handle, is a hole, by means of which, and three others on the upper part of the handle, the water, when it is poured into the inhaler, will rise to the same level in both. To the middle of the cover a flexible tube about five or six inches long is fixed, with a mouth-piece of wood or ivory. Underneath the cover there is a valve fixed, which opens and shuts the communication between the upper and internal part of the inhaler and the external air. When the mouth is applied to the end of the tube in the act of inspiration, the air rushes into the handle, and up through the body of warm water, and the lungs become, consequently, filled with hot vapours. In expiration, the mouth being still fixed to the tube, the breath, together with the steam on the surface of the water in the inhaler, is forced up through the valve in the cover. In this manner, therefore, the whole act of respiration is performed through the inhaler, without the necessity, in the act of expiration, of either breathing through the nose, or removing the pipe from the mouth.

INHERITANCE, a perpetual right or interest in lands, invested in a person and his heirs. See DESCENT.

INHIBITION, a writ to inhibit or forbid a judge from further proceeding in a cause depending before him.

Sometimes prohibition and inhibition are put together, as of the same import; but inhibition is most commonly a writ issuing out of a higher court-christian to a lower; and prohibition out of the king's court to an inferior court.

INHIBITION, in *Scots Law*, a diligence obtained at the suit of a creditor against his debtor, prohibiting him from selling or contracting debts upon his estate to the creditor's prejudice.

INJECTION, the forcibly throwing certain liquid medicines into the body by means of a syringe, tube, clyster-pipe, or the like.

INJECTION, in *Surgery*, the throwing in some liquor or medicine into a vein opened by incision. This practice, and that of transfusion, or the conveying the arterial blood of one man, or other animal, into another, were once greatly practised, but are now laid aside.

Anatomical INJECTION, the filling the vessels of a human, or other animal body, with some coloured substance, in order to make their figures and ramifications visible.

I. The best account of the method of injecting the *sanguiferous* vessels of animals, is that by the late Dr Monro, published in the Medical Essays, vol. i. p. 79.

"The instrument with which the liquor is commonly thrown into the vessels is a tight easy going syringe of brass, to which several short pipes are fitted, and can be fixed by screws; the other extremities of these pipes being of different diameters without any screw, that they may slide into other pipes, which are so exactly adapted to them at one end, that when they are pressed a little together, nothing can pass between them: and because their cohesion is not so great as to resist the pushing force of the injection, which would drive off this second pipe, and spoil the whole operation; therefore the extremity of this second sort of pipes, which receives the first kind, is formed on the outside into a square, bounded behind and before by a rising circle, which hinders the key that closely grasps the square part from sliding backwards or forwards; or a bar of brass must stand out from each side of it to be held with the fingers. The other extremity of each of these second sort of pipes is of different diameter; and near it a circular notch, capable of allowing a thread to be sunk into it, is formed; by this, the thread tying the vessel at which the injection is to be made, will not be allowed to slide off. Injection.

"Besides this form described, common to all this second sort of pipes, we ought to have some of the larger ones, with an additional mechanism, for particular purposes; as, for instance, when the larger vessels are injected, the pipe fastened into the vessel ought either to have a valve or a stop-cock, that may be turned at pleasure, to hinder any thing to get out from the vessel by the pipe; otherwise, as the injection, in such a case, takes time to coagulate, the people employed in making the injection must either continue all that while in the same posture; or, if the syringe is too soon taken off, the injected liquor runs out and the larger vessels are emptied. When the syringe is not large enough to hold at once all the liquor necessary to fill the vessels, there is a necessity of filling it again. If, in order to do this, the syringe was to be taken off from the pipe fixed in the vessel, some of the injection would be lost, and what was exposed to the air would cool and harden; therefore some of the pipes ought to have a reflected curve tube coming out of their side, with a valve so disposed, that no liquor can come from the straight pipe into the crooked one, but, on the contrary, may be allowed to pass from the crooked to the straight one; the injector then, taking care to keep the extremity of the reflected pipe immersed in the liquor to be injected, may, as soon as he has pushed out the first syringeful, fill it again by only drawing back the sucker; and, repeating this quickly, will be able to throw several syringefuls into the vessels.

"All these different sorts of pipes are commonly made of brass.

"The liquors thrown into the vessels, with a design to fill the small capillary tubes, are either such as will incorporate with water, or such as are oily: both kinds have their advantages and inconvenienoes; which I shall mention in treating of each, and shall conclude with that which I have found by experience to succeed best.

"All the different kinds of glue, or ichthyocolla, syths, common glue, &c. dissolved and pretty much diluted, mix easily with the animal fluids, which is of great advantage, and will pass into very small vessels of a well-chosen and prepared subject, and often answer the intention sufficiently, where the design is only to prepare some very fine membrane, on which no vessels can be expected to be seen so large as the eye can discover whether the transverse sections of the vessels would be circular, or if their sides are collapsed. But when the larger vessels are also to be prepared, there

Injection. there is a manifest disadvantage to the usefulness and beauty of the preparation; for if nothing but the glutinous liquor is injected, one cannot keep a subject so long as the glue takes of becoming firm; and therefore, in dissecting the injected part, several vessels will probably be cut and emptied. To prevent this, one may indeed either soak the part well in alcohol, which coagulates the glue; but then it becomes so brittle, that the least handling makes it crack; and if the preparation is to be kept, the larger vessels appear quite shrivelled, when the watery part of the injection is evaporated: or the efflux of the injection may be prevented, by carefully tying every vessel before we are obliged to cut it; still, however, that does not hinder the vessels to contract when the glue is drying. If, to obviate these difficulties, the glutinous liquor should first be injected in such quantity as the capillary vessels will contain, and the common oily or waxy injection is pushed in afterwards to keep the larger vessels distended, the wax is very apt to harden before it has run far enough; the two sorts of liquors never miss to mix irregularly, and the whole appears interrupted and broken by their soon separating from each other; which is still more remarkable afterwards, when the watery particles are evaporated.

"Spirit of wine coloured mixes with water and oils, and so far is proper to fill the very small vessels with: but, on the other hand, it coagulates any of our liquor it meets, which sometimes blocks up the vessels so much, that no more injection will pass; then it scarce will suspend some of the powders that prove the most durable colours; and as it entirely evaporates, the vessels must become very small; and the small quantity of powder left, having nothing to serve for connecting its particles together, generally is seen so interrupted, that the small ramifications of vessels rather have the appearances of random scratches of a pencil, than of regular continued canals.

"Melted tallow, with a little mixture of oil of turpentine, may sometimes be made to fill very small vessels, and keeps the larger ones at a full stretch; but where any quantity of the animal liquors are still in the vessels, it is liable to stop too soon, and never can be introduced into numbers of vessels, while other liquors enter; and it is so brittle, that very little handling makes it crack, and thereby renders the preparation very ugly (A).

"The method I have always succeeded best with, in making what may be called *subtile* or *fine injections*, is, first throw in coloured oil of turpentine, in such a quantity as might fill the very small vessels; and, immediately after, to push the common coarse injection into the larger ones. The oil is subtile enough to enter rather smaller capillary tubes than any colouring can; its resinous parts, which remain after the spirituous are evaporated, give a sufficient adhesion to the particles of the substance with which it is coloured, to keep them from separating, and it intimately incorporates with the coarser injection; by which, if the injection is rightly managed, it is impossible for the sharpest eye to discover that two sorts have been made use of (B). Injection.

"All the liquors with which the vessels of animals are artificially filled, having very faint, and near the same colours, would not all appear in the very small vessels, because of their becoming entirely diaphanous, without a mixture of some substance to impart its colour to them; and where several sorts of even the largest vessels of any part were filled, one sort could not be distinguished from another, unless the colour of each was different; which has likewise a good effect in making preparations more beautiful. Wherefore anatomists have made use of a variety of such substances, according to their different fancies or intentions; such as gamboge, saffron, ink, burnt ivory, &c. which can be easily procured from painters. My design being only to consider those that are fit to be mixed with the injecting liquors proposed to fill capillary vessels, which is scarce ever to be done in any other, except the branches of the arteries and of some veins, I shall confine myself to the common colours employed to these last-named two sorts of vessels, which colours are red, green, and sometimes blue, without mentioning the others, which require very little choice.

"Anatomists have, I imagine, proposed to imitate the natural colours of the arteries and veins in a living creature, by filling the arteries with a red substance, and the veins with a blue or green: from which, however, there are other advantages, such as the strong reflection which such bodies make of the rays of light, and the unaptness most such bodies have to transmit these same rays, without at least a considerable reflection of the rays peculiar to themselves; or, in other words, their unfitness to become completely pellucid; without which, the very fine vessels, after being injected, would still be imperceptible. The animal or vegetable substances made use of for colouring injections, such as cochineal, laque, *rad. anchusæ*, brazil-wood, indigo, &c. have all one general fault of being liable to run into little knots which stop some of the vessels: their colour fades sooner when kept dry; they more easily yield their tincture when the parts are preserved in a liquor; and rats, mice, and insects, will take them for food: for which reasons, though I have frequently succeeded in injecting them, I rather prefer the mineral kind, such as minium or vermilion for red; of which this last is, in my opinion, the best, because it gives the brightest colour, and is commonly to be bought finely levigated. The green-coloured powder generally

(A) Rigierus (*Introduct. in notitiam rerum natur.* &c. 4to, *Hagae*, 1743, *titul. Balsamum*) gives Ruysch's method of injecting and preserving animals, which, he says, Mr Blumentrost, president of the Petersburg academy, assured him was copied from the receipt given in Ruysch's own hand-writing to the Czar. According to this receipt, melted tallow, coloured with vermilion, to which, in the summer, a little white wax was added, was Ruysch's injecting *ceracia materies*.

(B) Mr Ranby's injecting matter, as published by Dr Hales, (*Hæmast.* Ex. 21.) is white rosin and tallow, of each two ounces, melted and strained through linen; to which was added three ounces of vermilion, or finely ground indigo, which was first well rubbed with eight ounces of turpentine varnish.

Injection. generally used is verdigrise; but I rather choose that preparation of it called *distilled verdigrise;* because its colour is brighter, and it does not so often run into small knots as the common verdigrise, but dissolves in the oily liquors.

"The method of preparing the injection composed of these materials, is to take for the fine one, a pound of clear oil of turpentine, which is gradually poured on three ounces of vermilion, or distilled verdigrise finely powdered, or rather well levigated by grinding on marble; stir them well with a small wooden spatula till they are exactly mixed, then strain all through a fine linen rag. The separation of the grosser particles is, however, rather better made, by pouring some ounces of the oil upon the powder, and after stirring them together strongly, stop rubbing with the spatula for a second or so, and pour off into a clean vessel the oil with the vermilion or verdigrise suspended in it; and continue this sort of operation till you observe no more of the powder come off; and all that remains is granulated. The coarser injection is thus prepared: Take tallow, 1 pound; wax, bleached white, 5 ounces; salad oil, 3 ounces: melt them in a skillet put over a lamp: then add Venice turpentine, 2 ounces; and as soon as this is dissolved, gradually sprinkle in of vermilion or verdigrise prepared, 3 ounces; then pass all through a clean, dry, warmed linen-cloth, to separate all the grosser particles; and, when you design to make it run far into the vessels, some oil of turpentine may be added immediately before it is used.

"The next thing to be considered, and indeed what chiefly contributes to the success of injections, is the choice and preparation of the subject whose vessels are to be filled.

"In choosing a fit subject, take these few general rules: The younger the creature to be injected is, the injection will, *cæteris paribus*, go farthest, and *vice versa*. 2. The more the creature's fluids have been dissolved and exhausted in life, the success of the operation will be greater. 3. The less solid the part designed to be injected is, the more vessels will be filled. 4. The more membranous and transparent parts are, the injection shows better; whereas, in the solid very hard parts of a rigid old creature, that has died with its vessels full of thick strong blood, it is scarcely possible to inject great numbers of small vessels.

"Therefore, in preparing a subject for injecting, the principal things to be aimed at are, To dissolve the fluids, empty the vessels of them, relax the solids, and prevent the injection's coagulating too soon. To answer all these intentions, authors have proposed to inject tepid or warm water by the arteries, till it returns clear and untinged by the veins, and the vessels are thereby so emptied of blood, that all the parts appear white; after which, they push out the water by forcing in air; and lastly by pressing with their hands, they squeeze the air also out. After this preparation, one can indeed inject very subtilely; but generally there are inconveniencies attend it. For in all the parts where there is a remarkable *tunica cellulosa*, it never misses to be full of the water, which is apt to spoil any parts designed to be preserved either wet or dry; and some particles of the water seldom miss to be mixed in the larger as well as smaller vessels with the oily injection, and make it appear discontinued and broken: wherefore it is much better to let this injection of water alone, if it can be possibly avoided, and rather to macerate the body or part to be injected a considerable time in water, made so warm (c) as one can hold his hand easily in it; taking care to keep it of an equal warmth all the time, by taking out some of the water as it cools, and pouring in hot water in its place; by which the vessels will be sufficiently softened and relaxed, the blood will be melted down, and the injection can be in no danger of hardening too soon; whereas, if the water is too hot, the vessels shrink, and the blood coagulates. From time to time we squeeze out the liquids as much as possible at the cut vessel by which the injection is to be thrown in (d). The time this maceration is to be continued, is always in proportion to the age of the subject, the bulk and thickness of what we design to inject, and the quantity of blood we observe in the vessels, which can only be learned by experience; at least, however, care ought to be taken, that the whole subject, or part macerated, is perfectly well warmed all through; and that we continue the pressure with our hands till no more blood can be brought away, whatever position we put the subject in.

Injection.

When the syringe, injections, and subjects, are all in readiness, one of the second sort of pipes is chosen as near to the diameter of the vessel by which the injection is to be thrown as possible; for if the pipe is too large, it is almost needless to tell it cannot be introduced. If the pipe is much smaller than the vessel, it is scarce possible to tie them so firmly together, but, by the wrinkling of the coats of the vessel, some small passage will be left, by which part of the injection will spring back on the injector in the time of the operation, and the nearest vessels remain afterwards undistended, by the loss of the quantity that oozes out. Having chosen a fit pipe, it is introduced at the cut orifice of the vessel, or at an incision made in the side of it; and then a waxed thread being brought round the vessel, as near to its coats as possible, by the help of a needle, or a flexible eyed probe, the surgeon's knot is made with the thread, and it is drawn as firmly as the thread can allow; taking care that it shall be sunk into the circular notch of the pipe all around, otherwise it will very easily slide off, and the pipe will be brought out probably in the time of the operation, which ruins it.

"If there have been large vessels cut, which communicate with the vessels you design to inject, or if there are any others proceeding from the same trunk which

(c) Ruysch orders a previous maceration for a day or two in cold water; which must have a better effect in melting the blood than warm water has.

(d) When Ruysch intended to inject the whole body, he put one pipe upwards, and another downwards, in the descending aorta.

Injection. which you do not resolve to fill, let them be all carefully now tied up, to save the injected liquor, and make the operation succeed better in the view you then have.

"When all this is done, both sorts of injections are to be warmed over a lamp, taking care to stir them constantly, lest the colouring powder fall to the bottom and burn (E). The oil of turpentine needs be made no warmer than will allow the finger to remain in it, if the subject has been previously well warmed in water; when the maceration has not been made, the oil ought to be scalding hot, that it may warm all the parts which are designed to be injected. The coarse injection ought to be brought near to a boiling. In the mean time, having wrapt several folds of linen round the parts of the syringe which the operator is to grip, and secured the linen with thread, the syringe is to be made very hot by sucking boiling water several times up (F), and the pipe within the vessel is to be warmed by applying a sponge dipped in boiling water to it (G).

"After all is ready, the syringe being cleared of the water, the injector fills it with the finer injection; and then introducing the pipe of the syringe into that in the vessel, he presses them together, and either with one hand holds this last pipe firm, with the other gripes the syringe, and with his breast pushes the sucker; or, giving the pipe in the vessel to be held by an assistant, in any of the ways mentioned in the description of these sorts of pipes, he gripes the syringe with one hand, and pushes the sucker with the other, and consequently throws in the injection, which ought to be done slowly, and with no great force, but proportioned to the length and bulk of the part to be injected and strength of the vessels. The quantity of this fine injection to be thrown in is much to be learned by use. The only rule I could ever fix to myself in this matter was to continue pushing till I was sensible of a stop which would require a considerable force to overcome. But this will not hold where all the branches of any vessel are not injected; as for instance, when the vessels of the thorax are only to be injected: for the aorta bears too great a proportion to the branches sent from it, and therefore less fine injection is requisite here. As soon as that stop is felt, the sucker of the syringe is to be drawn back, that the nearest large vessels may be emptied. Then the syringe is taken off, emptied of the fine injection, and filled with the coarser, which is to be pushed into the vessels quickly and forcibly, having always regard to the strength and firmness of the vessels, bulk, &c. of the part. Continue to thrust the sucker, till a full stop or a sort of push backwards, is felt, when you must beware of thrusting any more, otherwise some of the vessels will be burst, and the whole, or a considerable share of the preparation you designed, will be spoiled by the extravasation; but rather immediately stop the pipe by the turn-cock, and take out the syringe to clean it, and allow sufficient time for the coarse injection to coagulate fully before any part is dissected. Ruysch, immediately after throwing in the injection, put the body into cold water, and stirred it continually for some time to prevent the vermilion to separate from the tallow." Injection.

II. The injection of the *lymphatic* system is much more difficult than that of the sanguiferous, on account of the extreme smallness of the vessels; so that till very lately it was almost quite impracticable. Methods indeed had been attempted for this purpose; but by reason of the improper form of the instruments, and the inferior skill of anatomists in former times, we may justly look upon this as one of the most modern improvements in anatomy.

The first thing to be considered, when the lymphatics are to be injected, is a proper method of discovering them; for this is by no means an easy matter, on account of their smallness and transparency.—To find out these vessels, the subject must be viewed in a proper place, where the light is neither very strong nor very weak. Mr Sheldon, who has written a treatise upon this subject, recommends a winter forenoon from ten to two; it being chiefly in the winter season that anatomical preparations are made, and because at that time of the day the light is more clear and steady. He says also, from his own experience, that the light passing through the glass of a window is better for this purpose than the open air, as the vessels are more distinctly seen. The injecting of the vessels is likewise rendered more difficult in the open air by the ease with which the humidity is evaporated from them. It will likewise be necessary to incline the part in various ways to the light, as some of the vessels are most easily discoverable in one position and some in another. The lacteal trunks under the peritoneal coats of the intestines, and the lymphatics on the external surface of the liver, &c. particularly require this method. He discommends the use of magnifying glasses. "I am persuaded (says he), that those who attempt to find them through this medium will not acquire that *visus eruditus* which is obtained to a surprising degree by those who have been much experienced in injecting lymphatic vessels. A lateral light is likewise preferable to a horizontal, or even to an oblique sky-light.

"The subjects must be laid upon a table of sufficient height, which might be contrived with a ledge fixed to the table in such a manner as to be water-proof; which would be useful for preventing the quicksilver, which is almost always necessary for injecting these vessels, from being lost. The surface of the table should likewise be hollowed, so that the mercury which falls may be collected in the middle, where a hole with a stopper may be made to take out occasionally the quicksilver which collects. Such a table would also be convenient for holding water for the purpose of steeping membranous parts which are frequently to be injected; and

(E) Ruysch melts his tallow by the heat of warm water, into which he puts the vessel containing the injection.

(F) He warms his syringe by laying it on hot coals.

(G) He warms his pipe, by putting the body, after the pipe is fixed in the vessel, into hot water. When this is to be done, a cork ought to be put into the pipe, to prevent the water getting into the vessel that is to be injected.

Injection. and which, from being exposed to the air, become dry; which also it is inconvenient and hazardous to move into water during the time of operation. Even a common table with a hole cut in the middle may answer the purpose: the hole may be round or square according to the fancy of the anatomist; but the table must be constructed of such materials as are not liable to warp in warm water. Should the anatomist not be provided with either of these tables, the parts must be laid in a tray or earthen dish, that the quicksilver may be saved."

The materials for injecting these vessels are only quicksilver, and the ceraceous or *coarse* injection of anatomists; the former being always used in injecting the lymphatics and lacteals, it being almost impossible to fill them with another fluid in the dead body. The ceraceous injection is chiefly used for the thoracic duct; and in some particular instances, where the lymphatic trunks have been found larger than the ordinary size, a coarse injection has been made use of.

Injections of the lymphatics may be made even while the animal is alive, and that without any great cruelty, by feeding it with milk previous to its being strangled. Of all the barbarous methods of opening the animal while alive, the most useful seems to be that of Mr Hunter, who directs to perforate the small intestines, and throw in starch-water with solutions of musk, or indigo and starch-water. "In a word (says Mr Sheldon), any gelatinous fluids rendered opaque with such colours as will be absorbed, are extremely useful for experiments of this kind; for much more may be seen by examining the vessels distended with a coloured fluid from natural absorption, than by anatomical injection practised in the dead body." Lieberkuhn first discovered the ampullulæ by feeding children in whom the lacteal glands were obstructed previous to their death with milk; by which means not only the lacteal trunks became distended with chyle, but likewise the ampullulæ. Thus absorbing mouths of the lacteal vessels were discovered by Lieberkuhn; and in a similar manner Asellius discovered the lacteals themselves. Thus also Eustachius discovered the thoracic duct in a horse; and Mr Hewson traced the lacteal vessels, lymphatics, and thoracic duct, in birds, by making ligatures on the root of the mesentery, and other parts, which had been previously fed with barley. Mr Hunter likewise was enabled to observe the lacteals of a crocodile when distended with chyle.

The coarse injection for the lymphatics is made of mutton suet and yellow resin, in the proportion of two-thirds of resin to one of suet. If required of a thicker consistence, we may add a small quantity of pure wax: if of a softer quality, we may augment the quantity of suet: Orpiment or king's yellow is generally made use of; though others are equally proper, provided they be fine enough.

The instruments necessary for injecting the lymphatic vessels are the injecting tube and pipe, lancets, blow-pipes, knives, scissars, forceps, needles, and thread. The old injecting tube has been found in a manner entirely useless, the pipe being fixed in a glass tube two or three feet long; which is one of the reasons why, before the time of Hewson, so little of the lymphatic system could be injected. Tubes of such a length are entirely unmanageable by one person, and it is impossible to perform the operation properly with two. To perform it in the best manner, the instrument should be held in the hand like a pencil or pen. The instruments used by our author are tubes made either of glass or of brass; which, when filled with mercury, may be held in the hand like a pen: a glass tube, however, is preferable to the metallic one. It is somewhat in the shape of a trumpet; six inches and a half in length, an inch and a half broad where broadest, and three-eighths of an inch where narrowest. A collar of steel half an inch broad and three quarters of an inch long is cemented to this pipe, and a smaller tube of the same metal is screwed upon the end of the collar; the whole terminating in a capillary tube about an inch in length. This last is the most difficult part of the whole work to execute; it should be drilled out of a solid piece of metal, and not made of a thin bit of plate soldered, as these are apt to turn ragged in the edges, and the solder is also liable to be destroyed by the mercury. Those used by Mr Sheldon were made by drilling a small hole lengthwise through a bit of well-tempered wire. It is cleaned by means of a very small piece of steel-wire capable of passing through the bore of the tube. This ought to be annealed lest it should break; in which case the broken bit could not easily be got out. Very small tubes may be made of glass drawn out as fine as we choose; and thought very apt to break, they are easily repaired. They ought to be very thin, that they may be easily melted. Sometimes it has been found convenient to fit the collar with a stop-cock. Injection.

The brass tube represented by our author is about nine inches and a half in length, and half an inch wide where widest. The collar is a full quarter of an inch broad, and three quarters of an inch long; a steel piece and capillary tube being screwed to it as in the other.

The lancets are to be exquisitely sharp, in order to cut into the lymphatic vessels. The latter are easily inflated by the small silver blow-pipes usually put up in the dissecting cases by the London mathematical instrument makers: dissecting knives, fine-pointed scissars, accurately made dissecting forceps, with straight or crooked needles, are likewise substituted with advantage, as not being affected by the quicksilver.

We must next consider the proper subjects for injection. Mr Sheldon recommends, that they should be as free from fat as possible: he has always found in the human subject those who died universally dropsical, or of an ascites or anasarca, to be the best, for the following reasons, viz. in such there is little or no animal oil, and but a very small quantity of red blood; both of which, when they occur in great abundance, very much impede the discovery of the lymphatic vessels; but when the cellular vessels are loaded with water, the absorbents are more readily traced, and with less risk of wounding them in dissection: the preparations also, particularly the dried ones, are more lasting. This circumstance is found to be of most consequence in preparing the absorbent vessels of the trunk and extremities of the human subject. Of all the viscera in young subjects, only the liver and lungs can be injected with success; and these may be successfully injected even in the fœtus. It will be most proper to begin the operation

Injection. tion upon the subject immediately after death, as lymph or chyle will then be more readily found in the vessels, than when we wait a longer time. In preparing the lacteals, previously distended with milk, in the living subject, it is proper to have the intestines and mesentery plunged (with the ligature upon the root of the latter) into rectified spirit of wine. This process will coagulate the chyle; and the fluid being opaque, the vessels will be beautifully seen when we mean to prepare the parts, by preserving them in proof-spirit, as wet specimens: "In this way (says Mr Sheldon) I have made in the dog one of the most natural preparations that can be seen of the lacteals injected from their orifices by the natural absorption." We may also prepare the lacteals by the method used by Mr Hunter, already mentioned, by which they will be very conspicuous, by the indigo absorbed from the cavity of the intestines. By tying the thoracic duct near its insertion into the angle formed between the subclavian and jugular veins on the left side, or by tying these veins on both sides, we may distend almost all the absorbents of the animal. Thus we are enabled to pursue these vessels in many parts where they have not yet been discovered, where they can scarcely be traced by injection, and even in some parts where it is utterly impossible for the injections to reach them.

Another method, sometimes successfully used by our author, was first practised by Malpighi. In this the part is to be steeped in water, and the liquid changed as long as it appears tinged with blood; suffering the parts afterwards to remain in the same water till the putrefaction begins. As soon as this begins to take place, the air which is extricated will distend the lymphatics, so that they may be easily seen, and then injected with quicksilver. It is, however, remarkable, that this method will not in general answer so well in the human species as in quadrupeds; the air having never passed by putrefaction into the human lacteals in any of the subjects which Mr Sheldon tried, though it will take place in those of the horse or ass, and many other animals: drawings of the lacteals may likewise be made in this method to very great advantage. In some parts of the human body also this method may be employed to advantage, as the liver, heart, &c. It may likewise be useful to make ligatures on the large trunks of the vessels previous to the maceration, that thus the air may be confined as soon as it is extricated from the coats by putrefaction. Our author adds, that if ligatures were made upon the wrists and legs *in articulo mortis*, or immediately after death, the lymph would be stopped in the vessels, the latter would become distended, and might be injected with the greatest facility by the common method after taking off the ligature. Mr Sheldon in such a case recommends the tourniquet. "I have reason (says he) to believe, that absorption goes on as long as muscular irritability remains; which last continues a considerable time after the general life of the animal is lost." On this, however, we cannot forbear to remark, that making ligatures for such purposes upon a human creature *in articulo mortis*, or even immediately after death, savours so much of *barbarity*, that we cannot think it will be often practised. In some cases, even in the dead subject, ligatures are useful; as when we are searching for the lymphatics in the fingers and toes. In these it is useful to stroke up the parts with the finger, by which means the small quantity of lymph remaining in the vessels will be forced upwards, and stopped by the ligature; after which the vessels may be easily injected with quicksilver, as already mentioned. Injection.

To inject the vessels, we must open one or more of them, directing the point of the lancet almost always towards the trunk or trunks of the vessels, and taking care not to carry the incision through the opposite side. If the vessels happen to lie under the peritoneum as the lacteals, or under the pleura as the lymphatics of the lungs, we may cut into their cavity through these membranes. In injecting those of the extremities, however, and in many other parts of the body, it is absolutely necessary to dissect the vessels we design to fill away from the fat and reticular substance before we attempt to open them with the lancet. The tube with the pipe affixed to it is previously to be filled with mercury: the anatomist then inflates the vessel by means of the blowpipe, takes the tube from the assistant, and introduces the small tube into the puncture. In this operation it will be found necessary not to carry the tube farther into the vessel than is sufficient to give the mercury a free passage; for, if we introduce it farther, the passage of the mercury will be impeded by the pipe being pushed against the side of the vessel. Should not the fluid be able to effect a passage, it will then be necessary to press upon the surface of it in the tube with our fingers. If it descend freely, and without any of it passing between the side of the vessel and small pipe, we have only to fill up the tube with mercury as the latter descends; but if it gets out, we must then tie the vessel. This, however, should always be avoided if possible; because, if not very dexterously performed, the operator will be apt to separate the tube from the vessel; and on this account the puncture ought always to be very small, no larger indeed than is necessary to allow the pipe to get in with difficulty. As the injection proceeds, the pressure upon the surface of the quicksilver must be carried on higher and higher in the course of the lymphatic, till we come near the gland or glands into which the vessels terminate; otherwise we shall seldom get the cells of the glands, or the vessels emerging from the opposite side of the glands, well injected. In injecting the lymphatic vessels of the extremities, it will be useful to raise the part where the pipe is inserted higher than the other end of the limb, and to make the assistant press with his hands along the skin in the course of the vessels, which will favour the progress of the injection. When the vessels are sufficiently filled, which may be known by the swelling of them, and by the resistance the mercury meets with, the assistant passes a ligature about the vessel, and ties it above the puncture before the anatomist withdraws the injection-pipe.

The method of injecting the larger trunks or thoracic duct with the coarse injection is exactly similar to that already described for the sanguiferous vessels. Mr Sheldon, however, recommends the use of some pipes of a particular construction invented by himself. The improvement consists in shaping the ends of the pipes like a pen; taking care to make the edges and point blunt, to avoid cutting the vessels when we introduce them. Thus much larger tubes than those com-

Injection. monly in use may be admitted; and there is no occasion to make any bulb or rising near the extremity of these small pipes to prevent the thread from slipping off: for this will certainly hinder us from inserting pipes of such diameter as might otherwise be done.

Having thus shown the method of injecting the lymphatics, our author next proceeds to describe the method of dissecting and preparing them either for immediate demonstration, or for preservation for any length of time. In the dissection, great care is requisite, on account of the exquisite thinness of their coats: but if this should happen by accident, it will then be necessary to introduce the pipe at the ruptured part; and having secured it above and below with ligatures, to fill it again as before directed. Our author recommends, for the purpose of dissection, such knives as are made use of by the Germans and French in tracing the nerves. They must be made thin in the blade like lancets, and not much larger. A variety of different shaped blades, some single and others double edged, will be necessary for various parts of the body; the fault of the common dissecting knives being that they are too thick in the blade, which makes them soon blunt, and occasions the trouble of perpetual grinding, which is not the case with those just recommended. A sharp-pointed forceps is necessary, in order to lay fast hold of the smallest portion of cellular substance; but they ought not to be so sharp as to endanger the puncturing of the vessels: nor should they by any means be bowed or stiff in the spring, to prevent the fingers of the operator from being wearied in the operation. They should also be made in such a manner as to hold large as well as small portions of reticular substance. For dissections of this kind, fine-pointed scissars and lancets fixed in handles are sometimes necessary; and it is frequently of use to plunge the parts into water, in order to loosen the reticular membrane connected with the outside of the coats of the vessels; by which means they may be dissected more easily, and with less danger of wounding them. The blood may be extracted by frequently changing the water. After being injected with quicksilver, the parts should not be allowed to remain long in the water, because the volatile alkali formed by putrefaction is apt to change the colour of the mercury.

The dissection being performed, the preparation is then to be preserved either in a wet or dry state, according to its nature. Preparations of the larger parts, as the trunk or extremities, should be preserved dry; and to dry them effectually, they should be exposed to a free current of air, but not to the rays of the sun; and the vessels should be displayed in their natural situation. When fully dried, they ought then to be varnished over with transparent spirit or copal varnish: which will not only preserve them from insects, but render them more beautiful, and the vessels more conspicuous. They should then be inclosed in glass cases, where they are to be placed in a horizontal position, and handled as little as possible.

To make preparations of the thoracic duct, we must in the first place fill the aorta, vena cava superior, and vena azygos or intercostalis, with coarse injection; then fill, with the same, the vessels below the right crus or little muscle of the diaphragm. The duct is sometimes prepared with quicksilver; but Mr Sheldon recommends to anatomists to make drawings of any thing new or remarkable in their preparations of the lymphatic vessels with quicksilver; as most of those specimens, particularly such as are dried, become at last totally useless, by reason of the drying of the vessels and the escape or blackening of the mercury; or from the varnish growing more and more opaque with age. The quicksilver injection, however, in some cases is very useful. Thus, for instance, if we wish to demonstrate the valves in the thoracic duct, or any other large absorbent vessel, we need only inject the vessels with quicksilver, dissect and dry them, then cut them open, and let the mercury run out: after which the valves will appear by making sections in the coats of the vessels. This may be done still better by varnishing the vessels three or four times before the sections are made; because the varnish will strengthen the sides of the vessel. In wet preparations, the valves in the cavities of these parts may likewise be demonstrated by opening them, or by inverting the vessels and suspending them in proof malt-spirits. Thus the valves that cover the terminations of the thoracic duct on the inside of the angle formed between the jugular and subclavian veins on the left side, and those which terminate the lymphatics on the right side of the neck, arm, and lungs, may be beautifully demonstrated. Specimens of the lacteal vessels, of the absorbents of the heart, lungs, liver, spleen, diaphragm, kidneys, &c. may be kept wet or dry, according to the particular nature of the preparation or view of the anatomist. Some preparations are the better for being dried and afterwards immersed in phials full of oil of turpentine; by which means the flesh will be rendered transparent, the vessels distinctly seen, and the vessels appear extremely beautiful. The only disadvantage of this method is, that the parts on which the vessels pass, do not at all preserve their natural bulk by reason of their skrinking up; and as the wet preparations are free from this inconvenience, Mr Sheldon does not hesitate at assigning them a decided superiority over the dry ones.—Sometimes it is necessary to fix the preparations upon stiff paper or pasteboard, on account of their weight after being injected with mercury. The paper or pasteboard on which they are fastened ought to be of various colours, according to the nature of the preparation, in order to form a proper ground for showing the lymphatic vessels. Such small preparations as are preserved in spirits, or oil of turpentine, may be kept in bottles well closed with stoppers; and the larger in common preparation glasses. Our author describes a simple method of stopping the mouths of these preparation glasses, by which means the stopper is rendered nearly as durable as the glass itself. "In order to execute it, let the anatomist take care to have the upper surface of his bottles made plain, by desiring the workmen at the glass-house to flatten them in the making. This they will easily do in forming the round ones, but the flat bottles are attended with considerable difficulty. The right way to make them, I believe, would be to blow them in moulds of various sizes; the workman should likewise form the bottoms of the bottles perfectly flat, that they may stand upright and steady. Bottles of this form being provided for the larger preparations, we grind the upper surface of them on a plain plate of lead, about a quarter of an inch thick, and two feet in diameter; first with fine emery and water,

Injection. ter, then with powdered rotten stone, or putty first wet with water and at last dry; so that the surface may be reduced to an exact horizontal plane, and of as fine a polish as plate-glass. This will soon be done, as the manœuvre requires but little dexterity; and the anatomist should be provided with a considerable number of these glasses prepared as above directed. To the top of each bottle a piece of plate-glass, cut by a diamond, is to be adapted so as completely to cover, but not project over, the edge of the bottle. When these two smooth surfaces are put upon each other, with a drop of water between, the attraction of cohesion is so considerable, that it requires great force to separate them."

Many preparations of the lymphatics, and other parts preserved in bottles, do not require any strings to suspend them; particularly when fixed on pasteboard or paper: such as require suspension should be tied to strings fixed to the preparation below, and to small holes drilled in the substance of the glass at the bottom of the neck; or to small bits of glass, that may be fixed on the inside of the same part. The preparation is thus suspended in limpid proof malt-spirit, the bottle being almost completely filled; the upper and polished surface of the bottle, and the plate of glass, are to be wiped clean and dry; a drop of solution of gum arabic is to be put on the polished surface of the bottle, the top strongly and steadily pressed upon it, so as to bring the two surfaces into as close contact as possible; after which the bottle is to be placed in a cool airy place to dry. A piece of wet ox-bladder, freed from fat, and soaked in water till it becomes mucilaginous, is then to be placed over the top, the air pressed out from between it and the glass; after which it must be tied with a packthread dipped in the solution of gum arabic. The bladder being cut off neatly under the last turn of the thread, is then to be dried, the string taken cautiously off, and the top and neck painted with a composition of lamp-black mixed with japanners gold size: this soon dries, and leaves a fine smooth glossy surface, from which the dirt can at any time be as readily wiped off as from a mirror. By this method large bottles are as easily and effectually secured as small ones; and it is found to answer as well as the hermetical sealing of glasses, which in large vessels is altogether impracticable. If the bottoms have any inequalities which prevent them from standing steady, they may be easily made perfectly flat by grinding them with emery on the plate above mentioned. The tops, if well gummed, will even remain perfectly fixed on the glasses without the bladder: though in the common upright ones it may be advisable to put it on as a defence. Our author informs us, that since his making this discovery, he has used glass saucers; with flat tops gummed on. In these vessels the preparations, by reason of their horizontal posture, appear to great advantage. Thus he has exhibited very early abortions in their membranes, and some other preparations that cannot be suspended or viewed conveniently in the perpendicular direction. Some very delicate preparations, particularly those intended to be viewed with the microscope, those of the ampullulæ lacteæ of Lieberkuhn, and of the valves of the absorbents, may be preserved either in spirits or dry in tubes closed in the manner just mentioned, and will appear to great advantage. Some of the dry ones may also be advantageously placed in square oblong boxes, made of pieces of plate or white glass neatly gummed together, with narrow slips of white or coloured paper, and the objects may be conveniently viewed in this manner. With respect to the stopper bottles, which are very convenient for holding small preparations, our author advises the stoppers to be perfectly well ground; that they pass rather lower down than the neck of the bottle, for the convenience of drilling two holes obliquely through the inferior edge of the substance of the stopper, opposite to each other, for the convenience of fixing threads to hold the subject: for if the threads pass between the neck and stopper, a space will be left; or if the stopper be well ground, the neck of the bottle will be broken in endeavouring to press it down. On the other hand, if any space be left, the thread, by its capillary attraction, will act from capillary attraction, raise the spirits from the bottle, and cause evaporation, which will likewise take place from the chink between the stopper and neck. Injection || Ink.

INISTIOGE, a post town of Kilkenny, in the province of Leinster; 63 miles from Dublin. It is also a borough, and returns two members to parliament; patronage in the representative of Sir William Fownes.—It has two fairs.

INITIATED, a term properly used in speaking of the religion of the ancient heathens; where it signifies being admitted to the participation of the sacred mysteries. The word comes from the Latin *initiatus*, of *initiare*, *initiari*; which properly signifies to begin sacrificing, or to receive or admit a person to the beginning of the mysteries, or of ceremonies of less importance.

The ancients never discovered the deeper mysteries of their religion, nor even permitted some of their temples to be open, to any but those who had been initiated. See MYSTERY.

INJUNCTION, in *Law*, a writ generally grounded upon an interlocutory order or decree out of the court of chancery or exchequer, sometimes to give possession to the plaintiff, for want of the defendant's appearance; sometimes to the king's ordinary court, and sometimes to the court-christian, to stop proceedings in a cause, upon suggestion made, that the rigour of the law, if it take place, is against equity and conscience in that case, that the complainant is not able to make his defence in these courts, for want of witnesses, &c. or that they act erroneously, denying him some just advantage. The writ of injunction is directed not only to the party himself, but to all and singular his counsellors, attorneys, and solicitors; and if any attorney, after having been served with an injunction, proceeds afterward contrary to it, the court of chancery will commit the attorney to the Fleet for contempt. But if an injunction be granted by the court of chancery in a criminal matter, the court of king's bench may break it, and protect any that proceed in contempt of it.

INJURY, any wrong done to a man's person, reputation, or goods. See ASSAULT.

INK, a black liquor used, in writing, generally made of an infusion of galls, copperas, and gum-arabic.

The properties which this liquor ought to have, are,

Ink. 1. To flow freely from the pen, and sink a little into the paper, that the writing be not easily discharged. 2. A very deep black colour, which should be as deep at first as at any time afterwards. 3. Durability, so that the writing may not be subject to decay by age. 4. Ink should be destitute of any corrosive quality, that it may not destroy the paper, or go through it in such a manner as to render the writing illegible. No kind of ink, however, hath yet appeared which is possessed of all these qualities. The ink used by the ancients was possessed of the second, third, and fourth qualities above mentioned, but wanted the first. Dr Lewis hath discovered its composition from some passages in ancient authors. "Pliny and Vitruvius (says he) expressly mention the preparation of soot, or what we now call *lamp-black*, and the composition of writing-ink from lamp-black and gum. Dioscorides is more particular, setting down the proportions of the two ingredients, viz. three ounces of the soot to one of the gum. It seems the mixture was formed into cakes or rolls; which being dried in the sun, were occasionally tempered with water, as the cakes of Indian ink are among us for painting."

In Mr Delaval's Treatise on Colours, p. 37. he acquaints us, that with an infusion of galls and iron filings, he had not only made an exceedingly black and durable ink, but by its means, without the addition of any acid, dyed silk and woollen cloth of a good and lasting black. This kind of ink, however, though the colour is far superior to that of any other, has the inconvenience of being very easily discharged, either by the smallest quantity of any acid, or even by simple water; because it does not penetrate the paper in such a manner as is necessary to preserve it from the instantaneous action of the acid or of the water. During the action of the infusion of galls upon the iron in making this kind of ink, a very considerable effervescence takes place, and a quantity of air is discharged, the nature of which has not yet been examined.

The materials usually employed for the making of ink are, common green vitriol, or copperas and galls; but almost all of them are deficient in durability, which is a property of such importance, that Dr Lewis hath thought the subject of ink-making not unworthy of his attention. From experiments made by that author, he infers, that the decay of inks is chiefly owing to a deficiency of galls; that the galls are the most perishable ingredient, the quantity of these, which gives the greatest blackness at first (which is about equal parts with the vitriol), being insufficient to maintain the colour: that, for a durable ink, the quantity of galls cannot be much less than three times that of the vitriol; that it cannot be much greater without lessening the blackness of the ink: that by diminishing the quantity of water, the ink is rendered blacker and more durable; that distilled water, rain-water, and hard spring-water, have the same effects: that white wine produces a deeper black colour than water; that the colour produced by vinegar is deeper than that by wine; that proof-spirit extracts only a reddish brown tinge; that the last-mentioned tincture sinks into, and spreads upon, the paper; and hence the impropriety of adding spirit of wine to ink, as is frequently directed, to prevent mouldiness or freezing: that other astringents, as oak-bark, bistort, sloe-bark, &c. are not so effectual as galls, nor give so good a black, the colour produced by most of these, excepting oak-bark, being greenish: that the juice of sloes does not produce a black colour with martial vitriol; but that, nevertheless, the writing made with it becomes black, and is found to be more durable than common ink: that inks made with saturated solutions of iron, in nitrous, marine, or acetous acids, in tartar, or in lemon juice, were much inferior to the ink made with martial vitriol: that the colour of ink is depraved by adding quicklime, which is done with an intention of destroying any superabundant acid which may be supposed to be the cause of the loss of the colour of ink: that the best method of preventing the effects of this superabundant acid is probably by adding pieces of iron to engage it; and that this conjecture is confirmed by an instance the author had heard, of the great durability of the colour of an ink in which pieces of iron had been long immersed: and lastly, that a decoction of logwood used instead of water, sensibly improves both the beauty and deepness of the black, without disposing it to fade. The same author observes, that the addition of gum-arabic is not only useful, by keeping the colouring matter suspended in the fluid, but also by preventing the ink from spreading, by which means a greater quantity of it is collected on each stroke of the pen. Sugar, which is sometimes added to ink, is found to be much less effectual than gums, and to have the inconvenience of preventing the drying of the ink. The colour of ink is found to be greatly injured by keeping the ink in vessels made of copper or of lead, and probably of any other metal, excepting iron, which the vitriolic acid can dissolve.

The foregoing experiments point out for the best proportions of the ingredients for ink, one part of green vitriol, one part of powdered logwood, and three parts of powdered galls. The best menstruum appears to be vinegar or white wine, though for common use water is sufficient. If the ink be required to be of a full colour, a quart, or at most three pints, of liquor, may be allowed to three ounces of galls, and to one ounce of each of the other two ingredients. Half a ounce of gum may be added to each pint of the liquor. The ingredients may be all put together at once in a convenient vessel, and well shaken four or five times each day. In 10 or 12 days the ink will be fit for use, though it will improve by remaining longer on the ingredients. Or it may be made more expeditiously, by adding the gum and vitriol to a decoction of galls and logwood in the menstruum. To the ink, after it has been separated from the feculencies, some coarse powder of galls, from which the fine dust has been sifted, together with one or two pieces of iron, may be added, by which its durability will be secured.

In some attempts made by the Doctor to endow writing ink with the great durability of that of the ancients, as well as the properties which it has at present; he first thought of using animal glues, and then of oily matters. "I mixed both lamp-black (says he) and ivory-black with solutions of gum-arabic, made of such consistence as just to flow sufficiently from the pen. The liquors wrote of a fine black colour; but

when

Ink. when dry, part of the colour could be rubbed off, especially in moist weather, and a pencil dipped in water washed it away entirely.

"I tried solutions of the animal-glues with the same event. Isinglass or fish glue being the most difficultly dissoluble of these kinds of bodies, I made a decoction of it in water, of such strength that the liquor concreted into a jelly before it was quite cold: with this jelly, kept fluid by sufficient heat, I mixed some ivory-black: characters drawn with this mixture on paper bore rubbing much better than the others, but were discharged without much difficulty by a wet pencil.

"It was now suspected, that the colour could not be sufficiently fixed on paper without an oily cement. As oils themselves are made miscible with watery fluids by the intervention of gum, I fixed some of the softer painters varnish, aftermentioned, with about half its weight of a thick mucilage of gum-arabic, working them well together in a mortar till they united into a smooth uniform mass: this was beaten with lamp-black, and some water added by little and little, the rubbing being continued till the mixture was diluted to a due consistence for writing. It wrote freely, and of a full brownish black colour: the characters could not be discharged by rubbing, but water washed them out, though not near so readily as any of the foregoing. Instead of the painters varnish or boiled oil, I mixed raw linseed oil in the same manner with mucilage and lamp-black; and on diluting the mixture with water, obtained an ink not greatly different from the other.

"Though these oily mixtures answered better than those with simple gums or glues, it was apprehended that their being dischargeable by water would render them unfit for the purposes intended. The only way of obviating this imperfection appeared to be, by using a paper which should admit the black liquid to sink a little into its substance. Accordingly I took some of the more sinking kinds of paper, and common paper made damp as for printing; and had the satisfaction to find, that neither the oily nor the simple gummy mixtures spread upon them so much as might have been expected, and that the characters were as fixed as could be desired, for they could not be washed out without rubbing off part of the substance of the paper itself.

"All these inks must be now and then stirred or shaken during the time of use, to mix up the black powder, which settles by degrees to the bottom: those with oil must be well shaken also, though not used, once a-day, or at least once in three or four days, to keep the oil united with the water and gum; for, if once the oil separates, which it is apt to do by standing at rest for some days, it can no longer be mixed with the thin fluid by any agitation. But though this imperfect union of the ingredients renders these inks less fit for general use than those commonly employed, I apprehend there are many occasions in which these kinds of inconveniences will not be thought to counterbalance the advantage of having writings which we may be assured will be as lasting as the paper they are written upon. And indeed the inconvenience may be in a great measure obviated by using cotton in the inkstand, which, imbibing the fluid, prevents the separation of the black powder diffused through it.

"All the inks, however, made on the principle we are now speaking of, can be discharged by washing, unless the paper admits them to sink into its substance. The ancients were not insensible of this imperfection; and sometimes endeavoured to obviate it, according to Pliny, by using vinegar, instead of water, for tempering the mixture of lamp-black and gum. I tried vinegar, and found it to be of some advantage, not as giving any improvement to the cement, but by promoting the sinking of the matter into the paper. As this washing out of the ink may be prevented by using a kind of paper easy enough to be procured, it is scarce to be considered as an imperfection; and indeed, on other kinds of paper, it is an imperfection only so far as it may give occasion to fraud, for none of these inks are in danger of being otherwise discharged than by design. The vitriolic inks themselves, and those of printed books and copperplates, are all dischargeable; nor can it be expected of the ink-maker to render writings secure from frauds. Ink.

"But a further improvement may yet be made, namely, that of uniting the ancient and modern inks together; or using the common vitriolic ink instead of water, for tempering the ancient mixture of gum and lamp-black. By this method it should seem that the writings would have all the durability of those of former times, with all the advantage that results from the vitriolic ink fixing itself in the paper. Even where the common vitriolic mixture is depended on for the ink, it may in many cases be improved by a small addition of the ancient composition, or of the common Indian ink which answers the same purpose: when the vitriolic ink is dilute, and flows so pale from the pen, that the fine strokes, on first writing, are scarcely visible, the addition of a little Indian ink is the readiest means of giving it the due blackness. By this admixture it may be presumed also that the vitriolic ink will be made more durable, the Indian ink in some measure covering it, and defending it from the action of the air. In all cases, where Indian ink or other similar compositions are employed, cotton should be used in the inkstand, as already mentioned, to prevent the settling of the black powder."

Since the invention of printing much less attention than formerly has been paid to the making of ink, so that now the art seems to be in a great measure lost. This will appear from a comparison of some ancient manuscripts with the writings of modern times. It being of the utmost importance, however, that public records, wills, and other valuable papers, which cannot admit of being printed, should be written with ink of a durable quality, this inattention seems to have been very culpable, and a restoration of the method of making writing ink a very valuable acquisition. "The necessity (says Mr Astle *) of paying greater attention to this matter may readily be seen, by comparing the rolls and records that have been written from the 15th century to the end of the 17th, with the writings we have remaining of various dates from the 5th to the 12th centuries. Notwithstanding the superior antiquity of the latter, they are in excellent preservation; but we frequently find the former, though of more modern date, so much defaced, that they are scarcely legible."

* *Origin of Alphabetic Writing.*

Our author agrees with Dr Lewis in the opinion that

Ink. that the ancient inks were composed of soot or ivory black instead of the galls, copperas, and gums, which form the composition of ours. Besides their black inks, however, the ancients used various other colours, as red, gold and silver, purple, &c. Green ink was frequently used in Latin manuscripts, especially in the latter ages; and it was frequently employed in signatures by the guardians of the Greek emperors till their wards were of age. Blue or yellow ink was seldom used except in manuscripts; but (says Mr Astle) "the yellow has not been much in use, as far as we can learn, these 600 years." Some kinds of characters, particularly the metallic, were burnished. Wax was used by the Latins and Greeks as a varnish, but especially by the former, and particularly in the 9th century. It continued a long time in vogue.

A treatise upon inks was published by Peter Caniparius professor of medicine at Venice; of which an edition was printed at London in 1660. It is divided into six parts. The first treats of inks made from pyrites, stones, and metals; the second of such as are made from metals and calces; the third from soots and vitriols; the fourth of the different kinds of inks used by the librarii or book-writers, by printers, and engravers; likewise of staining or writing upon marble, stucco, or scaliolia, and of encaustic modes of writing; also of liquids for painting or colouring leather and linen or woollen cloth; restoring inks that had been decayed by time; together with many methods of effacing writing, restoring decayed paper, and different modes of secret writing. The fifth treats of writing inks made in different countries from gums, woods, the juices of plants, &c. as well as of different kinds of varnishes. The sixth treats of the different methods of extracting vitriol, and the chemical uses of it.

Weckerus de Secretis, a treatise printed at Basil in 1612, contains a number of curious particulars concerning ink. He gives also receipts for making gold and silver inks, composed both with these metals and without them; directions for making inks for secret writing, and for defacing them; though in this last part there are many particulars bordering too much on the marvellous.

In the Philosophical Transactions for 1787, Dr Blagden gives some account of a method of restoring decayed inks so as to render them legible. His experiments originated from a conversation with Mr Astle already quoted, on the question whether the inks made eight or ten centuries ago, and which are found to have preserved their colour very well, were made of the same materials now employed or not? In order to decide the question, Mr Astle furnished the doctor with several manuscripts on parchment and vellum from the 9th to the 15th centuries inclusively. Some of these were still very black; others of different shades, from a deep yellowish brown to a very pale yellow, in some parts so faint that it could scarcely be seen. This was tried with simple and phlogisticated alkalies, the mineral acids, and infusion of galls. From these experiments it appeared that the ink anciently employed was of the same nature as at present: the letters turned of a reddish or yellowish brown with alkalies became pale, and were at length obliterated by the dilute mineral acids. The drop of acid liquor, which had been put upon a letter, changed to a deep blue or green on the addition of phlogisticated alkalies; with an infusion of galls, in some cases the letters acquired a deep tinge, in others a slight one. "Hence (says the doctor) it is evident, that one of the ingredients was iron, which there is no reason to doubt was joined with the vitriolic acid; and the colour of the more perfect MSS. which in some was a deep black, and in others a purplish black, together with the restitution of that colour in those which had lost it by the infusion of galls, sufficiently proved that another of the ingredients was astringent matter, which from history appears to have been that of galls. No trace of a black pigment of any sort was discovered; the drop of acid, which had completely extracted a letter, appearing of an uniform pale and ferruginous colour, without an atom of black powder, or other extraneous matter floating in it."

As this account differs very materially from the former extracted from Mr Astle's writings, so the reason given for the continuance of the colour differs no less. This, according to Dr Blagden, "seems to depend very much on a better preparation of the material upon which the writing was made, namely the parchment or vellum; the blackest letters being generally those which had sunk into it the deepest. Some degree of effervescence was commonly to be perceived when acids were in contact with the surface of these old vellums. I was led, however, to suspect, that the ancient inks contained rather a less proportion of iron than the more modern; for, in general, the tinge of colour produced by the phlogisticated alkali in the acid laid upon them, seemed less deep; which, however, might depend in part upon the length of time they have been kept: and perhaps more gum was used in them, or they were washed over with some kind of varnish, though not such as gave any gloss."

Among the specimens with which our author was favoured by Mr Astle, there was one which differed very materially from the rest. It was said to be a manuscript of the 15th century: the letters were of a full engrossing hand, angular without any fine strokes, broad, and very black. None of the chemical solvents above mentioned seemed to produce any effect. Most of them seemed rather to make the letters blacker, probably by cleaning the surface; and the acids, after having been rubbed strongly upon the letters, did not strike any deeper tinge with the phlogisticated alkali. Nothing could obliterate these but what took off part of the vellum; when small rolls of a dirty matter were to be perceived. "It is therefore unquestionable (says the doctor) that no iron was used in this ink; and, from its resistance to the chemical solvents, as well as a certain clotted appearance in the letters when examined closely, and in some places a slight degree of gloss, I have little doubt that they were formed of a sooty or carbonaceous powder and oil, probably something like our present printers ink; and am not without suspicion that they were actually printed."

On examining this MS. more fully, our author was convinced that it was really a part of a very ancient printed book. In considering the methods of restoring the legibility of decayed writings, our author observes, that perhaps one of the best may be to join phlogisticated alkali with the calx of iron which remains; because

Ink. cause the precipitate formed by these two substances greatly exceeds that of the iron alone. On this subject Dr Blagden disagrees with Mr Bergmann; but to bring the matter to a test, the following experiments were made.

1. The phlogisticated alkali was rubbed in different quantities upon the bare writing. This, in general, produced little effect; though, in a few instances, it gave a bluish tinge to the letters, and increased their intensity; "probably (says the doctor) where something of an acid nature had contributed to the diminution of their colour." 2. By adding, besides the alkali, a dilute mineral acid to the writing, our author found his expectations fully answered; the letters then changing quickly to a very deep and beautiful blue. It is but of little consequence whether the acid or phlogisticated alkali be first added; though upon farther consideration the doctor inclined to begin with the alkali. The reason is, that when the alkali is first put on, the colour seems to spread less, and thus not to hurt the legibility of the writing so much as would otherwise be done. His method is to spread the alkali thin over the writing with a feather, then to touch it as gently as possible upon or nearly over the letters with the diluted acid by means of a feather or bit of stick cut to a blunt point. The moment that the acid liquor is applied, the letters turn to a fine blue, beyond comparison stronger than the original trace of the letter; and by applying a bit of blotting-paper to suck up the superfluous liquid, we may in a great measure avoid the staining of the parchment: for it is this superfluous liquor which, absorbing part of the colouring matter from the letters, becomes a dye to whatever it touches. Care ought, however, to be taken not to allow the blotting paper to come in contact with the letters, because the colouring matter may easily be rubbed off while soft and wet. Any one of the three mineral acids will answer the purpose effectually. Dr Blagden commonly uses the marine. But whichever of the three is used, it ought to be diluted so far as not to be in danger of corroding the parchment; after which the degree of strength seems not to be a matter of great nicety.

Another method of restoring the legibility of old writings is by wetting them with an infusion of galls in white wine: but this is subject to the same inconvenience with the former, and is besides less efficacious. The doctor is of opinion that the acid of the galls by itself would be better for the purpose than the infusion of the whole substance of them; and he thinks also that a preferable kind of phlogisticated alkali might be prepared either by purifying the common kind from iron as much as possible, or by making use of the volatile alkali instead of the fixed. Mr Astle mentions a method of restoring the legibility of decayed writings; but says that it ought not to be hazarded lest a suspicion of deceit should arise.

A method has been proposed of preventing ink from decaying by washing over the paper to be written upon with the colouring matter of Prussian blue, which will not deprave it in colour, or any other respect. By writing upon it with common ink afterwards, a ground of Prussian blue is formed under every stroke; and this remains strong after the black has been decayed by the weather or destroyed by the acids. Thus the ink will bear a larger proportion of vitriol at first, and will have the advantage of looking blacker when first written. Ink.

Indian Ink, a valuable black for water-colours, brought from China and other parts of the East Indies, sometimes in large rolls, but more commonly in small quadrangular cakes, and generally marked with Chinese characters. Dr Lewis, from experiments made on this substance, hath shown that it is composed of fine lamp-black and animal glue: and accordingly, for the preparation of it, he desires us to mix the lamp-black with as much melted glue as is sufficient to give it a tenacity proper for being made into cakes; and these when dry, he tells us, answered as well as those imported from the East Indies, both with regard to the colour and the freedom of working. Ivory black, and other charcoal blacks, levigated to a great degree of fineness, answered as well as the lamp-black; but in the state in which ivory-black is commonly sold, it proved much too gritty, and separated too hastily from the water.

Printing Ink, is totally different from Indian ink, or that made use of in writing. It is an oily composition, of the consistence of an ointment: the method of preparing it was long kept a secret by those whose employment it was to make it, and who were interested in concealing it; and even yet is but imperfectly known. The properties of good printing ink are, to work clean and easily, without daubing the types, or tearing the paper; to have a fine black colour; to wash easily off the types; to dry soon; and to preserve its colour, without turning brown. This last, which is a most necessary property, is effectually obtained by setting fire to the oil with which the printing ink is made for a few moments, and then extinguishing it by covering the vessel (A). It is made to wash easily off the types, by using soap as an ingredient; and its working clean depends on its having a proper degree of strength, which is given by a certain addition of rosin. A good deal, however, depends on the proportion of the ingredients to each other; for if too much soap is added, the ink will work very foul, and daub the types to a greater degree. The same thing will happen from using too much black, at the same time that both the soap and black hinder the ink from drying; while too much oil and rosin tear the paper, and hinder it from washing off.—The following receipt has been found to make printing ink of a tolerable good quality. "Take a Scots pint of linseed oil, and set it over a pretty brisk fire in an iron or copper vessel capable of holding three or four times as much. When it boils strongly, and emits a thick smoke, kindle it with a piece of paper, and immediately take the vessel off the fire. Let the oil burn for about a minute; then extinguish it by covering the vessel; after it has grown

(A) This is mentioned by Dr Lewis in his Philosophical Commerce of Arts; but he seems not to have been acquainted with the method of giving it the other necessary properties.

Ink. grown pretty cool, add two pounds of black rosin, and one pound of hard soap cut into thin slices. If the oil is very hot when the soap is added, almost the whole mixture will run over the vessel. The mixture is then to be set again over the fire; and when the ingredients are thoroughly melted, a pound of lamp-black, previously put through a lawn sieve, is to be stirred into it. The whole ought then to be ground on a marble stone, or in a levigating mill.

Though the above receipt is greatly superior to any that hath been hitherto published, all of which are capitally deficient in not mentioning the necessary ingredients of rosin and soap; yet it must be acknowledged that ink made in this manner is inferior in point of colour, and is likewise more apt to daub the types and make an indistinct impression, than such as is prepared by some of those who make the manufacture of this commodity their employment; so that either a variation in the proportion of the ingredients, a nicety in the mixture, or some additional ingredient, seems necessary to bring it to the requisite perfection.

Ink for the rolling Press, is made of linseed oil burnt in the same manner as that for common printing ink, and then mixed with Francfort-black, and finely ground. There are no certain proportions which can be determined in this kind of ink; every workman adding oil or black to his ink as he thinks proper, in order to make it suit his own taste.—Some, however, mix a portion of common boiled oil, which has never been burnt: but this must necessarily be a bad practice, as such oil is apt to go through the paper; a fault very common in prints, especially if the paper is not very thick. No soap is added; because the ink is not cleared off from the copperplates with alkaline ley as in common printing, but with a brush dipped in oil.

Ink is also an appellation given to any coloured liquor used in writing. Different kinds of these inks may be prepared by the directions given under the article *Colour-Making*.

Sympathetic Ink, a liquor with which a person may write, and yet nothing appear on the paper after it is dry, till some means are used, as holding the paper to the fire, rubbing it over with some other liquor, &c.

These kinds of ink may be divided into seven classes, with respect to the means used to make them visible; viz. 1. Such as become visible by passing another liquor over them, or by exposing them to the vapour of that liquor. 2. Those that do not appear so long as they are kept close, but soon become visible on being exposed to the air. 3. Such as appear by strewing or sifting some very fine powder of any colour over them. 4. Those which become visible by being exposed to the fire. 5. Such as become visible by heat, but disappear again by cold or the moisture of the air. 6. Those which become visible by being wetted with water. 7. Such as appear of various colours.

I. The first class contains four kinds of ink, viz. solutions of lead, bismuth, gold, and green vitriol, or sulphate of iron. The two first become visible by the contact of sulphureous liquids or fumes. For the first, a solution of common sugar of lead in water answers very well. With this solution write with a clean pen, and the writing when dry will be totally invisible; but if it be wetted with a solution of *hepar sulphuris*, or of orpiment, dissolved by means of quicklime; or exposed to the strong vapours of these solutions, the writing will appear of a brown colour, more or less deep according to the strength of the sulphureous fume. By the same means the solution of nitrate of bismuth will appear of a deep black.

The sympathetic ink prepared from gold depends on the property by which that metal precipitates from its solvent on the addition of a solution of tin. Write with a solution of gold in nitro-muriatic acid, and let the paper dry gently in the shade; nothing will appear for the first seven or eight hours. Dip a pencil in the solution of tin, and draw it lightly over the invisible characters, they will immediately appear, of a purple colour.

Characters written with a solution of green vitriol, will likewise be invisible when the paper is dry; but if wetted with an infusion of galls, they will immediately appear as if written with common ink. If, instead of this infusion, a solution of an alkaline prussiate be used, the writing will appear of a deep blue.

II. To the second class belong the solutions of all those metals which are apt to attract oxygen from the air, such as lead, bismuth, silver, &c. The sympathetic ink of gold already mentioned belongs also to this class; for if the characters written with it are long exposed to the air, they become by degrees of a deep violet colour, nearly approaching to black. In like manner, characters written with a solution of nitrate of silver are invisible when newly dried, but being exposed to the sun, appear of a gray colour like slate. To this class also belong solutions of sugar of lead, nitrates of copper and of mercury, acetate of iron, and muriate of tin. Each of these has a particular colour when exposed to the air; but they corrode the paper.

III. The third class of sympathetic inks contains such liquids as have some kind of glutinous viscosity, and at the same time are long in drying; by which means, though the eye cannot discern the characters written with them upon paper, the powders strewed upon them immediately adhere, and thus make the writing become visible. Of this kind are urine, milk, the juices of some vegetables, weak solutions of the deliquescent salts, &c.

IV. This class, comprehending all those that become visible by being exposed to the fire, is very extensive, as it contains all those colourless liquids in which the matter dissolved is capable of being reduced, or of reducing the paper, into a sort of charcoal by a small heat. Sulphuric acid diluted with as much water as will prevent it from corroding the paper makes a good ink of this kind. Letters written with this fluid are invisible when dry, but instantly on being held near the fire appear as black as if written with the finest ink. Juice of lemons or onions, a solution of sal-ammoniac, green vitriol, &c. answer the same purpose.

V. The fifth class comprehends only a solution of muriate of cobalt; for the properties of which, see Chemistry, N° 1608, p. 627.

VI. This class comprehends such inks as become visible when characters written with them are wetted with water. They are made of all such substances as deposite a copious sediment when mixed with water, dissolving only imperfectly in that fluid. Of this kind

are

Ink
||
Inn.

are dried alum, sugar of lead, vitriol, &c. We have therefore only to write with a strong solution of these salts upon paper, and the characters will be invisible when dry; but when we apply water, the small portion of dried salt cannot again be dissolved in the water. Hence the insoluble part becomes visible on the paper, and shows the characters written in white, gray, brown, or any other colour which the precipitate assumes.

VII. Characters may be made to appear of a fine crimson, purple, or yellow, by writing on paper with solution of muriate of tin, and then passing over it a pencil dipt in a decoction of cochineal, Brazil-wood, log-wood, yellow wood, &c.

Ink Stones, a kind of small round stones, of a white, red, gray, yellow, or black colour, containing a quantity of native martial vitriol, whence they derive the property of making ink, and from thence their name. They are almost entirely soluble in water, and besides their other ingredients, contain also a portion of copper and zinc.

INLAND, a name for any part of a country at a distance from the sea.

Inland Navigation. See Canal and (*Inland*) Navigation.

Inland Trade, that kind of trade carried on between the different parts of the same kingdom, whether over land, or by means of inland navigation.

INLAYING. See Veneering, Mosaic, and Marquetry.

INLEASED, in our old writers, signifies entangled or ensnared. It is used in the champion's oath.

INLISTING, in a military sense. See Listing.

INMATES, such persons as are admitted for their money, to live in the same house or cottage with another man, in different rooms, but going in at the same door; being usually supposed to be poor, and not able to maintain a whole house themselves. These are inquirable in a court-leet.—No owner or occupier of a cottage shall suffer any inmates therein, or more families than one to inhabit there, on pain of forfeiting 10s. per month to the lord of the leet.

INN, a place appointed for the entertainment and relief of travellers.

Inns are licensed and regulated by justices of the peace, who oblige the landlord to enter into recognizances for keeping good order. If a person who keeps a common inn, refuses to receive a traveller into his house as a guest, or to find him victuals and lodging on his tendering a reasonable price for them, he is liable to an action of damages, and may be indicted and fined at the king's suit. The rates of all commodities sold by innkeepers, according to our ancient laws, may be assessed: and innkeepers not selling their hay, oats, beans, &c. and all manner of victuals, at reasonable prices, without taking any thing for litter, may be fined and imprisoned, &c. by 21 Jac. I. c. 21. Where an innkeeper harbours thieves, persons of infamous characters, or suffers any disorders in his house, or sets up a new inn where there is no need of one, to the hinderance of ancient and well-governed inns, he is indictable and fineable; and by statute, such inn may be suppressed. Action upon the case lies against any innkeeper, if a theft be committed on his guest by a servant of the inn, or any other person not belonging to the guest; though it is otherwise where the guest is not a traveller, but one of the same town or village, for there the innkeeper is not chargeable; nor is the master of a private tavern answerable for a robbery committed on his guest: it is said, that even though the travelling guest does not deliver his goods, &c. into the innkeeper's possession, yet if they are stolen, he is chargeable. An innkeeper is not answerable for any thing out of his inn, but only for such as are within it; yet, where he of his own accord puts the guest's horse to grass, and the horse is stolen, he is answerable, he not having the guest's orders for putting such horse to grass. The innkeeper may justify the stopping of the horse, or other thing of his guest, for his reckoning, and may retain the same till it be paid. Where a person brings his horse to an inn, and leaves him in the stable, the innkeeper may detain him till such time as the owner pays for his keeping: and if the horse eats out as much as he is worth, after a reasonable appraisement made, he may sell the horse and pay himself: but when a guest brings several horses to an inn, and afterwards takes them all away except one, this horse so left may not be sold for payment of the debt for the others; for every horse is to be sold, only to make satisfaction for what is due for his own meat.

Inn.

Inns. Our colleges of municipal or common law professors and students, are called *inns*: the old English word for houses of noblemen, bishops, and others of extraordinary note, being of the same signification with the French word *hotels*.

Inns of Court are so called, as some think, because the students there are to serve and attend the courts of judicature; or else, because anciently these colleges received none but the sons of noblemen, and better sort of gentlemen, who were here to be qualified to serve the king in his court; as Fortescue affirms. And, in his time, he says, there were about 2000 students in the inns of court and chancery, all of whom were *filii nobilium*, or gentlemen born. But this custom has gradually fallen into disuse; so that in the reign of Queen Elizabeth, Sir Edward Coke does not reckon above 1000 students, and the number at present is very considerably less; for which Judge Blackstone assigns the following reasons. 1. Because the inns of chancery, being now almost totally filled by the inferior branches of the profession, are neither commodious nor proper for the resort of gentlemen of any rank or figure; so that there are very rarely any young students entered at the inns of chancery. 2. Because in the inns of court all sorts of regimen and academical superintendance, either with regard to morals or studies, are found impracticable, and therefore entirely neglected. Lastly, because persons of birth and fortune, after having finished their usual courses at the universities, have seldom leisure or resolution sufficient to enter upon a new scheme of study at a new place of instruction; wherefore few gentlemen now resort to the inns of court, but such for whom the knowledge of practice is absolutely necessary in such as are intended for the profession.

Our inns of court, justly famed for the production of men of learning in the law, are governed by masters, principals, benchers, stewards, and other officers: and have public halls for exercises, readings, &c.

Inns || Innisfallen.

which the students are obliged to attend and perform for a certain number of years, before they can be admitted to plead at the bar. These societies have not, however, any judicial authority over their members; but instead of this they have certain orders among themselves, which have by consent the force of laws. For lighter offences persons are only excommoned, or put out of commons; for greater, they lose their chambers, and are expelled the college; and when once expelled out of one society, they are never received by any of the others. The gentlemen in these societies may be divided into benchers, outer-barristers, inner-barristers, and students.

The four principal inns of court, are the Inner Temple and Middle Temple, heretofore the dwelling of the Knights Templars, purchased by some professors of the common law about 300 years ago; Lincoln's Inn and Gray's Inn, anciently belonging to the earls of Lincoln and Gray. The other inns are the two Serjeants Inns.

Inns of Chancery were probably so called, because anciently inhabited by such clerks as chiefly studied the forming of writs, which regularly belonged to the cursitors, who are officers of chancery.

The first of these is Thavies Inn, begun in the reign of Edward III. and since purchased by the society of Lincoln's Inn. Beside this, we have New Inn, Symond's Inn, Clement's Inn, Clifford's Inn, anciently the house of the lord Clifford; Staple Inn, belonging to the merchants of the staple; Lion's Inn, anciently a common inn with the sign of the lion; Furnival's Inn, and Bernard's Inn.

These were heretofore preparatory colleges for younger students; and many were entered here, before they were admitted into the inns of court. Now they are mostly taken up by attorneys, solicitors, &c.

They all belong to some of the inns of court, who formerly used to send yearly some of their barristers to read to them.

INNATE IDEAS, those supposed to be stamped on the mind, from the first moment of its existence, and which it constantly brings into the world with it: a doctrine which Mr Locke has taken great pains to refute.

INNERKEITHING. See INVERKEITHING.

INNERLOCHY. See INVERLOCHY and FORT-WILLIAM.

INNIS. See INCH.

INNISCLOCHRAN, or the STONEY ISLAND, an island in Lough Ree, in the river Shannon, between the counties of Westmeath and Roscommon, at which place a monastery was founded by St Dermond, about the beginning of the 6th century.

INNISFAIL, (derived from *Innis Bheal*, that is, "the island of Bheal"), one of the ancient names of Ireland, so denominated from *Beal*, the principal object of adoration among the ancient inhabitants of the British isles. Innisfail has been erroneously translated the *Island of Destiny*, as *Bheal* was sometimes taken for *Fate* or *Providence*.

INNISFALLEN, an island in the lake of Killarney, in the county of Kerry and province of Munster: in it are the ruins of a very ancient religious house, founded by St Finian, the patron saint of these parts, and to him the cathedral of Aghadoe is also dedicated. The remains of this abbey are very extensive, its situation romantic and retired. Upon the dissolution of religious houses, the possessions of this abbey were granted to Captain Robert Collam. The island contains about 12 acres, is agreeably wooded, and has a number of fruit-trees. St Finian flourished about the middle of the 6th century; he was surnamed in Irish *Lobhar*, his father's name was *Conail* the son of *Eschod;* descended from *Kian* the son of *Alild*, king of Munster. There was formerly a chronicle kept in this abbey, which is frequently cited by Sir J. Ware and other antiquaries under the title of the *Annals of Innisfallen*. They contain a sketch of universal history, from the creation of the world to the year 430 or thereabouts, but from thence the annalist has amply enough prosecuted the affairs of Ireland down to his own times. He lived to the year 1215. Sir J. Ware had a copy of them, whereof there is an imperfect transcript among the MSS. of the library of Trinity-college, Dublin. They were continued by another hand to the year 1320. Bishop Nicholson, in his Irish historical library, informs us, that the duke of Chandos had a complete copy of them down in 1320 in his possession. These annals tell us, that in the year 1180, the abbey, which had at that time all the gold and silver and richest goods of the whole country deposited in it, as the place of greatest security, was plundered by Mildwin son of Daniel O'Donoghoe, as was also the church of Ardfert, and many persons were slain in the very cemetery by the M'Cartys; but God, as it is said in this chronicle, punished this impiety by the untimely end of some of the authors of it.

Innisfallen || Innishirkan

INNISHANNON, a town in the county of Cork and province of Munster, 134 miles from Dublin; situated on the river Bandon, and six miles from Kinsale. The river is navigable to Collier's quay, about half a mile below the place. On the west side of the town is a strong bridge. This place was formerly walled, and of some note, as appears by the foundations of several castles and large buildings discovered in it. The town of Innishannon, together with its ferry, were granted to Philip de Barry by Henry V. by letters patent, anno 1412.

INNISHIRKAN, an island situated between Cape Clear island and Baltimore bay, in the county of Cork and province of Munster. In this island stood the castle of Dunelong, possessed by the O'Driscolls, which was surrendered after the defeat of the Spaniards to Captain Harvey on 23d Feb. 1602. There was afterwards a regular fortification erected on part of the island, which was garrisoned in Queen Anne's time, but it has been for several years dismantled; about a mile to the south are the remains of an ancient abbey, founded 1460, for Franciscans, by Florence O'Driscoll. This island has very good land, and is vastly preferable to that of Cape Clear island. To the north-west of Innishirkan island lies Hare island, a large fruitful spot; and near it are four small islands called the *Schemes:* also along the coast, in the following order from east to west, are Horse island, containing 100 acres; Castle island, containing 119 acres; Long island, containing 316 acres; and west of all these is a small spot called Goat island. All these islands, together with the adjacent coast, produce large crops of fine English barley.

INNISKILLING,

Inniskilling & Inoculation.

INNISKILLING, a borough town of Ireland, in the county of Fermanagh and province of Ulster, lying between three lakes. It is about 24 miles east of Ballyshannon, and 79 north-west of Dublin, this place giving title of viscount to the family of Cole. Its inhabitants distinguished themselves in several considerable engagements in the wars of Ireland at the revolution, out of which a regiment of dragoons, bearing the title of the *Inniskilleners*, was mostly formed. They form the 6th regiment of dragoons in the British army.

INNOCENTS DAY, a festival of the Christian church, observed on December 28. in memory of the massacre of the innocent children by the command of Herod king of Judea. See *Jesus Christ;* and JEWS, N° 24 par. ult. The Greek church in their kalendar, and the Abyssinians of Ethiopia in their offices, commemorate 14,000 infants on this occasion.

INNUENDO (of *innuo*, "I nod or beckon"), is a word frequently used in writs, declarations, and pleadings, to ascertain a person or thing which was named, but left doubtful, before: as, he (*innuendo* the plaintiff) did so and so: mention being before made of another person.—In common conversation or writing, an innuendo denotes an oblique hint or distant reference, in contradistinction to a direct and positive charge.

INO, in fabulous history, a daughter of Cadmus and Harmonia, who nursed Bacchus. She married Athamas king of Thebes, after he had divorced Nephele, by whom he had two children Phryxus and Helle. Ino became mother of Melicerta and Learchus; and soon conceived an implacable hatred against the children of Nephele, because they were to ascend the throne in preference to her own. Phryxus and Helle were informed of Ino's machinations, and they escaped to Colchis on a golden ram. Juno, jealous of Ino's prosperity, resolved to disturb her peace; and more particularly because she was of the descendants of her greatest enemy, Venus. Tisiphone was sent by order of Juno to the house of Athamas; and she filled the whole palace with such fury, that Athamas taking Ino to be a lioness and her children whelps, pursued her and dashed her son Learchus against a wall. Ino escaped from the fury of her husband; and from a high rock she threw herself into the sea with Melicerta in her arms. The gods pitied her fate; and Neptune made her a sea deity, which was afterwards called Leucothoe. Melicerta became also a sea god, known by the name of Palemon.

INOA, festivals in memory of Ino, celebrated yearly with sports and sacrifices at Corinth. An anniversary sacrifice was also offered to Ino at Megara, where she was first worshipped under the name of Leucothoe.—Another in Laconia, in honour of the same. It was usual at the celebration to throw cakes of flour into a pond, which if they sunk were presages of prosperity, but if they swam on the surface of the waters they were inauspicious and very unlucky.

INOCARPUS, a genus of plants belonging to the decandria class. See BOTANY *Index*.

INOCULATION, or BUDDING, in *Gardening*, is commonly practised upon all sorts of stone fruit; as nectarines, peaches, apricots, plums, cherries, as also upon oranges and jasmines: and indeed this is preferable to any sort of grafting for most sorts of fruit. For the method of performing it, see GARDENING *Index*.

Inoculation.

INOCULATION, in a physical sense, is used for the transplantation of distempers from one subject to another, particularly for the engraftment of the smallpox; which, though of ancient use in the eastern countries, is but a modern practice among us, at least under the direction of art.

It is well observed by the baron Dimsdale, that accident hath furnished the art of medicine with many valuable hints, and some of its greatest improvements have been received from the hands of ignorance and barbarism. This truth is remarkably exemplified in the practice of inoculation of the smallpox: but to the honour of the British physicians, they measured not the value of this practice by the meanness of its origin, but by its real importance and utility; they patronized a barbarous discovery with no less zeal and affection than if it had been their own. Indeed the whole nation might be said to have adopted the practice; for the greatest encouraged it by becoming examples, and the wisest were determined by the general event of the method.

The time and place in which the art of inoculating for the smallpox was first formed, are equally unknown. Accident probably gave rise to it. Pylarini says, that among the Turks it was not attended to except amongst the meaner sort. Dr Russel informs us in the Philosophical Transactions, vol. lviii. p. 142. that no mention is made of it by any of the ancient Arabian medical writers that are known in Europe; and the physicians who are natives in and about Arabia assert, that nothing is to be found regarding it in any of those of a more modern date. He farther says, that he engaged some of his learned Turkish friends to make inquiry; but they did not discover any thing on this subject of inoculation either in the writings of physicians, historians, or poets. Until the beginning of the 18th century, all the accounts we have of inoculating the smallpox are merely traditional. The silence on this subject, observed amongst writers in the countries where the practice obtained, Dr Russel supposes, with great probability, to be owing to the physicians there never countenancing or engaging in it. It is also remarkable, that before Pylarini's letter to the Royal Society in 1701, nor yet for several years after, this practice is not noticed by any of the most inquisitive travellers. On this Dr Russel very justly observes, that customs, the most common in distant countries, are often the least apt to attract the observation of travellers, who, engaged in other pursuits, must be indebted to accident for the knowledge of such things as the natives seldom talk of, upon the belief that they are known to all the world.

The first accounts we have in the learned world concerning inoculation, are from two Italian physicians, viz. Pylarini and Timoni, whose letters on the subject may be seen in the Phil. Trans. abridged, vol. v. p. 370, &c. The first is dated A. D. 1701; the next is dated A. D. 1713. Whether our inquiries are extended abroad or confined to our own country, inoculation hath been practised under one mode or other time immemorial; in Great Britain and its adjacent isles we have well authenticated accounts, extending farther backward than any from the continent. Dr Williams of Haverfordwest, who wrote upon inoculation in 1725, proves, that it had been practised in Wales, though in a form somewhat different, time out of mind. Mr Wright, a

Inoculation.

surgeon in the same place, says, that buying the smallpox is both a common practice, and of long standing in that neighbourhood. He says, that in Pembrokeshire there are two large villages near the harbour of Milford, more famous for this custom than any other, viz. St Ishmael's and Marloes. The old inhabitants of these villages say, that it hath been a common practice; and that one William Allen of St Ishmael's, who in 1722 was 90 years of age, declared to some persons of good sense and integrity, that this practice was used all his time; that he well remembered his mother telling him, that it was a common practice all her time, and that she got the smallpox that way; so that at least we go back 160 years or more.

In the Highlands of Scotland and some of the adjacent isles, Dr Alexander Monro senior informs us, that the custom through ages past hath been, to put their children to bed with those who laboured under a favourable smallpox, and to tie worsted threads about their children's wrists, after having drawn them through variolous pustules.

According to the result of Dr Russel's inquiries, the Arabians assert, that the inoculation of the smallpox has been the common custom of their ancestors, and that they have no doubt of its being as ancient as the disease itself. It is remarkable, that buying the smallpox is the name universally applied in all countries to the method of procuring the disease: it is true that there are other terms; but in Wales and Arabia, as well as many other countries, this is the usual appellation. From the sameness of the name, and the little diversity observable in the manner of performing the operation, it is probable that the practice of inoculation in these countries was originally derived from the same source. From its extensive spread, it is probably of great antiquity too.

In the year 1717, Lady Mary Wortley Montague, wife of the English ambassador at Constantinople, had her son inoculated there at the age of six years; he had but few pustules, and soon recovered. In April 1721, inoculation was successfully tried on seven condemned criminals in London, by permission of his majesty. In 1722, Lady Mary Wortley Montague had a daughter of six years old inoculated in this island; soon after which, the children of the royal family that had not had the smallpox were inoculated with success; then followed some of the nobility, and the practice soon prevailed. And here we date the commencement of inoculation under the direction of art.

From the example of the royal family in England, the practice was adopted in Germany, particularly in Hanover, and its adjacent countries.

After Mr Maitland had succeeded with those he had inoculated in and about London, he introduced the practice into Scotland in the year 1726.

Sweden soon followed the example of the British. Russia lately engaged one of our principal promoters and improvers of this art. And now there are not many countries that do not more or less practise it.

Different Modes of INOCULATION. The practice of inoculation having obtained in every part of the world, it may be grateful, at least to curiosity, to have a general account of the different modes that are and have been adopted in that practice.

Inoculation with the blood of variolous patients hath been tried without effect; the variolous matter only produces the variolous disease. Inoculation.

The application of the variolous matter takes place in a sensible part only; the activity of the virus is such, that the smallest atom, though imperceptible to any of our senses, conveys the disease as well as the largest quantity. Hence the most obvious method is the prick of a needle or the point of a lancet dipped in the matter of a variolous pustule.

Cotton or thread is used, that is previously rubbed with powdered variolous scabs; this thread is drawn with a needle through the cutis, but not left in. This is the method in some parts of the East Indies. The Indians pass the thread on the outside of the hand, between any of the fingers, or between the fore finger and thumb. The Thessalian women inoculate in the forehead and chin.

Some abrade the scarf-skin, and rub in the powdered dry scabs which fall from the pustules of patients with the smallpox.

Many of the Greek women make an oblique puncture with a needle, on the middle of the top of the forehead, on each cheek, the chin, each metacarpus, and each metatarsus; then drop in each a little of the pus just taken warm from a patient, and brought in a servant's bosom. Others in Greece make several little wounds with a needle in one, two, or more places, in the skin, till some drops of blood ensue; then the operator pours a drop of warm pus fresh from a pustule, and mixes it with the blood as it issues out; then the wound is covered by some with a bandage, by others with half a walnut shell placed with its concave side over each orifice.

The Chinese convey a pellet of variolated cotton, with the addition of a little musk, into the nostrils of the patient; they collect dry pustules, and keep them in a porcelain bottle well corked; and when they inoculate, they mix a grain of musk with three or four grains of the dry scales, and roll them in cotton. This method may be called *inodoration*.

About Bengal, in the East Indies, the person who intends to be inoculated, having found a house where there is a good sort of the smallpox, goes to the bed of the sick person, if he is old enough; or if a child, to one of his relations, and speaks to him as follows: "I am come to buy the small pox." The answer is, "Buy if you please." A sum of money is accordingly given, and one, three, or five pustules, for the number must always be odd, and not exceeding five, extracted whole, and full of matter. These are immediately rubbed on the skin of the outside of the hand between the forefinger and the thumb; and this suffices to produce the disease. The same custom obtains in Algiers, Tunis, Tripoli, and other countries.

Very similar to the custom among the people about Bengal, &c. is that in Arabia, where on some fleshy part they make several punctures with a needle imbrued in variolous matter, taken from a pustule of a favourable kind. Here they buy the smallpox too, as follows: the child to be inoculated carries a few raisins, dates, sugar-plums, or such like; and showing them to the child from whom the matter is to be taken, asks how many pocks he will give in exchange? The bargain being made, they proceed to the operation; but this buying, though still continued, is not thought necessary

Inoculation. necessary to the success of the operation. The Arabs say that any fleshy part is proper; but generally they insert the matter between the fore-finger and thumb on the outside of the arm.

The Georgians insert the matter on the fore-arm.

The Armenians introduce the matter on the two thighs. In Wales the practice may be termed infriction of the smallpox. There some of the dry pustules are procured by purchase, and are rubbed hard upon the naked arm or leg.

The practice in some places is to prick the skin between some of the fingers by means of two small needles joined to one another; and after having rubbed a little of the matter on the spot, a circle is made by means of several punctures of the higness of a common pustule, and matter is again rubbed over it. The operation is finished by dressing the wound with lint.—Another custom is to mix a little of the variolous matter with sugar, and give it to be drank in any agreeable liquor.

Incisions have been made in the arms and legs, and thread, cotton, or lint, previously dipped in the variolous matter, was lodged in them. The practice of some is to bathe the feet in warm water, and then secure lint dipped in the variolous matter on the instep, or other part of the foot, where the skin is thin. Others apply a small blistering plaster; and when the scarf skin is elevated and slipped off, the variolous matter is applied to the surface of the true skin, and confined there by a little lint or plaster. Scratching the skin with a pin or needle, and then rubbing the part with lint, previously dipped in variolous matter, is the custom in some places.

In the Highlands of Scotland they rub some part of the skin with fresh matter, or dip worsted in variolous matter, and tie it about the children's wrists. They observe, that if fresh matter is applied a few days successively, the infection is more certain than by one application.

We have thus given the history of inoculation for the smallpox, which not many years ago was justly regarded as one of the greatest discoveries which had been made for the benefit of mankind, and would still be regarded as such had it not given place to one still more valuable and important, the *vaccine inoculation* or *cowpox*, which now promises to banish the smallpox from the world. For an account of this, see VACCINATION. It would be quite unnecessary to enter into the detail of the advantages to be derived from inoculation for the smallpox, and the methods of performing or preparing for it formerly practised. But, as a curious part of the history of this practice, we shall just barely mention some of the objections which have been urged against it.

It has been said that inoculation for the smallpox is unlawful; that it is bringing a distemper on ourselves, and thus usurping the sacred prerogative of God; that the decrees of God have fixed the commission of every disease, and our precautions cannot prevent what he hath determined; that we should not do evil that good may come; that the patient may die, and then his last moments are distressed, and the future reflections of his friends are grievous; that fear is a dangerous passion in the smallpox, but inoculation increases the causes of fear, by lessening our faith and trust in God; that inoculation does not exempt from future infection; that other diseases are communicated with the matter of the smallpox by inoculating it; that perhaps the disease may never attack in the natural way; that it requires much thought to know what we should do with regard to inoculation; that it endangers others, and that the practice of inoculation comes from the devil. Inoculation || Inquisition.

INORDINATE PROPORTION. See *PROPORTION*, *Inordinate*.

INOSCULATION, in *Anatomy*, the same with ANASTOMOSIS.

INPROMPTU, or IMPROMPTU. See IMPROMPTU.

INQUEST, in *Scots Law*, the same with JURY.

INQUISITION, in the church of Rome, a tribunal in several Roman Catholic countries, erected by the popes for the examination and punishment of heretics.

This court was founded in the 12th century by Father Dominic and his followers, who were sent by Pope Innocent III. with orders to excite the Catholic princes and people to extirpate heretics, to search into their number and quality, and to transmit a faithful account thereof to Rome. Hence they were called *inquisitors*; and this gave birth to the formidable tribunal of the inquisition, which was received in all Italy and the dominions of Spain, except the kingdom of Naples and the Low Countries.

This diabolical tribunal takes cognizance of heresy, Judaism, Mahometanism, sodomy, and polygamy; and the people stand in so much fear of it, that parents deliver up their children, husbands their wives, and masters their servants, to its officers, without daring in the least to murmur. The prisoners are kept for a long time, till they themselves turn their own accusers, and declare the cause of their imprisonment; for they are neither told their crime nor confronted with witnesses. As soon as they are imprisoned, their friends go into mourning, and speak of them as dead, not daring to solicit their pardon, lest they should be brought in as accomplices. When there is no shadow of proof against the pretended criminal, he is discharged, after suffering the most cruel tortures, a tedious and dreadful imprisonment, and the loss of the greatest part of his effects. The sentence against the prisoners is pronounced publicly, and with extraordinary solemnity. In Portugal, they erect a theatre capable of holding 3000 persons; in which they place a rich altar, and raise seats on each side in the form of an amphitheatre. There the prisoners are placed; and over against them is a high chair, whither they are called, one by one, to hear their doom, from one of the inquisitors.

The unhappy people know what they are to suffer by the clothes they wear that day. Those who appear in their own clothes are discharged upon payment of a fine; those who have a santo benito, or strait yellow coat without sleeves, charged with St Andrew's cross, have their lives, but forfeit all their effects: those who have the resemblance of flames made of red serge, sewed upon their santo benito, without any cross, are pardoned, but threatened to be burnt if ever they relapse: but those who, besides these flames, have on their santo benito their own picture, surrounded with figures of devils, are condemned to expire in the flames. The inquisitors, who are ecclesiastics, do not pronounce the sentence of death; but

Inquisition || Insects.

but form and read an act, in which they say, that the criminal being convicted of such a crime, by his own confession, is with much reluctance delivered to the secular power to be punished according to his demerits: and this writing they give to the seven judges who attend at the right side of the altar, who immediately pass sentence. For the conclusion of this horrid scene, see *Act of Faith*.

INSCRIBED, in *Geometry*. A figure is said to be inscribed in another, when all its angles touch the side or planes of the other figure.

INSCRIPTION, a title or writing affixed to any thing, to give some farther knowledge of it, or to transmit some important truth to posterity.

Antiquaries are very curious in examining ancient inscriptions found on stones and other monuments of antiquity. Sanchoniatbon, contemporary, as it is said, with Gideon, drew most of the memoirs whereof his history is composed from inscriptions which he found in temples and on columns, both among the Heathens and the Hebrews.

It appears, indeed, that the ancients engraved upon pillars the principles of sciences, as well as the history of the world. Those mentioned by Herodotus show, that this was the first way of instructing people, and of transmitting histories and sciences to posterity. This is confirmed by Plato in his Hippias; wherein he says, that Pisistratus engraved on stone pillars precepts useful for husbandmen. Pliny assures us, that the first public monuments were made of plates of lead; and that the treaties of confederacy concluded between the Romans and the Jews were written upon plates of brass; that (says he) the Jews might have something to put them in mind of the peace and confederacy concluded with the Romans. The Greeks and Romans were great dealers in inscriptions, and were extremely fond of being mentioned in them; and hence it is that we find so many in those countries of ancient learning, that large volumes have been composed, as the collection of Gruter, &c. Since Gruter's collection, Th. Reinesius has compiled another huge volume of inscriptions. M. Fabretty published another volume at Rome in 1699, wherein he has corrected abundance of errors which had escaped Gruter, Reinesius, and other antiquaries, &c. and added a great number of inscriptions omitted by them.—Since all these, Grævius has published a complete collection of inscriptions, in three vols. folio.

INSCRUTABLE, Unsearchable, in *Theology*, is usually understood of the secrets of Providence, and the judgments of God, into which human reason cannot penetrate.

Academy of Inscriptions. See Academy.

INSECTS, Insecta, in *Natural History*, a smaller sort of animals, commonly supposed to be exsanguious; and distinguished by certain incisures, cuttings, or indentings in their bodies. The word is originally Latin, formed of *in*, and *seco*, "I cut;" the reason of which is, that in some of this tribe, as ants, the body seems to be cut or divided into two; or because the bodies of many, as worms, caterpillars, &c. are composed of different circles, or rings, which are a sort of incisuræ. See Entomology.—See also the article Insecta, in the Supplement.

Noxious Insects; Means of destroying them, or preventing their Increase. The following remedies we find collected in the Gentleman's Magazine for October 1790.—Of those substances which have been generally observed to be efficacious in driving away or in destroying insects, mercury, and its various preparations, may be reckoned one of the most generally useful. Sulphur is also useful. Oils of all kinds have been often and deservedly recommended. Tobacco is not less remarkable for its utility. Of the application of these in order. Insects.

1. Mercury is known to kill or drive away lice from the human body; and it may probably be of equal efficacy in ridding other animals of their insects. For instance, sheep having a small quantity of mercurial ointment rubbed on their skins, on the sides, between the fore-legs and the body, it may kill or drive away the insect peculiar to them. Sulphur is recommended to be added to the mercurial ointment. Thus not only the insect peculiar to them, but also the scab, may be cured: See the Transactions of the Society for the Encouragement of Arts, London, vol. vii. viii. p. 90. In the Transactions of the same society, vol. v. vi. p. 59. Mr Ailway directed that, in the winter, the walls, frames, &c. of his green and hot-houses should be well washed with the following mixture: Take of corrosive sublimate mercury four ounces, and dissolve it in two gallons of water. These houses had been greatly infested with red spiders and ants. After having been washed with the above mixture, neither were to be seen next summer. This wash may be used on old garden-walls, and to the roots of fruit-trees infested with insects, if made weaker. It may destroy the tender leaves of plants, though not the roots. This wash will effectually destroy that disagreeable insect the bug, and all other insects of a tender cuticle; and it will not in the least hurt the colour of bed-furniture or hangings. Care must be taken that the wash be applied into every crevice or folding of the furniture with a painter's brush. It will sometimes be necessary to repeat the wash, as some of the ova of bugs may remain concealed, notwithstanding the utmost care.

Some of the West India islands were much infested with large ants, which greatly hurt the sugar-canes. The remedy was, to dissolve corrosive sublimate mercury in rum, in the proportion of two drams to a pint of spirits. This solution was poured on dry powdered sugar; and when the sugar was dried, it was laid in the paths of the ants. They ate it, and were destroyed. Might not this practice be imitated, by laying sugar thus prepared on paper or pieces of thin boards near the roots of fruit-trees infested by insects, especially when the fruit is ripening? The papers or boards might be taken in during the night, or when it rained. The sugar should be coloured with indigo, or other substance, thereby to mark it as a substance to be avoided by curious idlers.

2. We are informed that a person in Philadelphia employed brimstone in the following manner. Having cleared all round the roots of trees infested with caterpillars or other insects, he strewed some flour of brimstone round the roots, and covered it with a thin sprinkling of fine mould, that it might not be blown away by the wind, yet so that the sun might operate through, and cause the brimstone to fumigate. Thus he destroyed the caterpillars. One pound he found sufficient for 200 trees. In that hot climate the sun

Insects. may perhaps have that effect; but it scarcely will in this. He also employed sulphur in the following manner to drive insects from small trees. He split the end of a pole, and put in the slit some matches, set them on fire, and held them under the parts of the trees chiefly affected. A pole thus armed, he found, would answer for three or four trees. Brimstone thus mixed with damp straw, and set on fire, for instance, in hop-ground infested with the fly, might be of use to drive away the fly.

The itch is supposed to proceed from a very small insect which nestles under the skin, and proceeds no farther into the habit; and is therefore attended with no dangerous consequences. Brimstone made into an ointment with hogs-lard is a sure remedy.

Sheep are liable to an eruption on the skin, known by the name of the *scab*. The brimstone, when added to the mercurial ointment recommended for that disorder in the Transactions of the Society for the Encouragement of Arts, vol. vii. p. 90. might perhaps render the application more efficacious and less dangerous.

3. The natives of hot countries are taught by experience, that an unctuous covering on their bodies prevents the bites of musquitoes and all gnats. The white inhabitants in such countries are not sufficiently careful in preventing the least stagnant water near their dwellings, in which the musquitoes are bred; even in the waste water thrown out they are produced. Dr Franklin, by a careful attention to this circumstance, guarded his family in Philadelphia from such insects: one day seeing a number of musquitoes in his library, he found on inquiry, that one of his servants had taken the cover off a tub placed near his window for receiving rain-water. On such an occasion this remedy is easy, viz. shutting the room up for the day, so that the musquitoes cannot come at any water, in which time they die. Though this caution may seem trifling to us who live in a mild climate, it is far otherwise in hot countries.

Oil being known to be most efficacious in destroying insects, may not the use of it be extended to the destruction of worms in the bowels of horses, where they may occasion the violent pain they seem sometimes to suffer? If the horse was for some time kept fasting, and a large quantity of oil, suppose a pint, was given, if worms are the cause, the oil may in that case kill them.

Flowers, leaves, and fruits, on plants, are known to be devoured by caterpillars. These are destroyed by oils, which close the lateral pores by which they breathe. For this purpose it is advised that, on the approach of spring, a cloth dipped in train oil be laid on such parts of the tree in which there is the least appearance of them.

We are informed in the Memoirs of the Society of Agriculture at Paris, that oil of turpentine, when applied to animals which were covered with insects, destroyed the insects without hurting the animal. The author tried it on several trees, mixed with fine earth so as to incorporate them well, then adding water, still stirring them carefully till the whole was brought to some degree of fluidity. In this mixture he dipped branches of fruit trees on which there were insects, and hereby destroyed not only the eggs but also the insects, without hurting the leaves. This composition may be got off by washing, or the first heavy shower. From these experiments the author thinks, that oil of turpentine may with equal efficacy be employed for killing various kinds of lice on domestic animals. Insects.

We are informed, in the Transactions of the Society for the Encouragement of Arts, vol. v. p. 45. that Mr Winter, among other experiments on turnip-seed, steeped the seed 24 hours in a sufficient quantity of train oil. He then drained the oil from the seed, which he mixed with a quantity of fine sifted earth, and immediately sowed it in drills. When the plants began to appear on the surface, the ground was sown with soot. He found that seed steeped in linseed oil answered equally well. The turnips the least injured by the fly were those that grew from seed steeped as above, which grew so luxuriantly as to produce rough leaves several days prior to the most flourishing of any of his other experiments, and were the better enabled to withstand the fly's attack. The leaves of these turnips were of a darker green, and appeared twice as thick in bulk and luxuriancy as the other turnips, and were a considerable deal larger. The seed was drilled an inch and a half deep, and at a foot distance in the rows. Train oil is apt to kill the leaves of plants which have been injured by insects, but linseed oil has not that effect, though equally destructive to the insects. The train oil seems to act both as an oil, and by its disagreeable smell it prevents insects approaching it. In this respect it may be successfully used to prevent field mice or other vermin preying on acorns, chesnuts, or other seeds steeped in it before they are sown.

When thus giving directions for preventing the fly on turnips, a late experiment should be mentioned, by the disclosing of which a person gained a considerable reward. His secret was, running a roller over the ground early in the morning, while the dew remained on the ground, on the first appearance of the fly. The dew entangled the flies so much, that they could not make their escape, and were therefore crushed to death. As the roller may leave the surface of the earth too hard, some very properly advise to fix some boughs of elder in a gate or hurdle, to be drawn over the field; and if the boughs had been before fumigated with the smoke of tobacco, or tincture of asafœtida, the success would be the surer. The most certain method of preventing the hurt done by the fly is to raise the plants in a nursery, and at a proper age to transplant them, being carried to the ground in a wheel-barrow filled with manure softened with water so as to admit the plants. This method will secure their more speedy growth. In the nursery the attack of the fly may be prevented by sprinkling soot or quicklime on the ground. The utility of transplanting turnips is evident by the practice of transplanting the turnip-rooted cabbage. They who are discouraged from this practice by the expence attending it, do not reflect that the hoeing is prevented, and the plants grow the better, being set in fresh earth.

4. Before proceeding to direct the use of the last means mentioned, viz. tobacco, for destroying insects in turnips, it may be proper to mention an experiment made by Mr Green, of her majesty's flower-garden at Kew. He contrived a pair of bellows similar to that employed in recovering people seemingly drowned. It

has

Insects. has a cavity in the nozzle, in which some tobacco is put, with a live coal over it. The bellows being then worked, the tobacco is set on fire, and the smoke is directed to any particular spot. A lady was fond of having the moskrose in her dressing-room, but was prevented having it on account of the green insects which constantly adhere to that plant. To remedy this inconvenience, Mr Green had a box made large enough to contain a pot in which a plant of the moskrose grew. In one end of the box was a hole, to admit the nozzle of the bellows; the bellows was worked, and the smoke was received into the box. When the tobacco was consumed, the nozzle was withdrawn, and a cork being put into the hole, the box thus remained till morning, when the insects were all laid dead on the earth. Being swept off, the plant was in a state fit for a dressing-room. Many plants thus infested with insects may be too large, or otherwise so placed as not to be put into a box. In this case it occurred to the writer of these observations, that being sprinkled with an infusion of tobacco in water might in some degree answer the same purpose. On trial he found it answer, and he thus freed other plants of their insects. He also used it on trees of easy access with advantage. Train oil is so inimical to tender plants or leaves, that it destroys them if insects have in the least hurt them; whereas the infusion, instead of killing the leaves, promoted a fresh vegetation.

Fruit trees often become the prey of insects. Those against a wall, or in espaliers, being easily come at, much of the mischief may be prevented by cutting off the leaves so soon as they are observed to be curled; for then fresh eggs are laid on them, probably by butterflies. If sprinkled with the infusion of tobacco, it will prevent their coming to life. After the fruit is formed, the infusion must not be used, lest the taste and smell may remain. The scissars are then the proper remedies, which ladies may employ as amusement, and may thereby present fruit to their friends of their own preserving. A lye of the ash of plants sprinkled on the leaves may have a good effect, as also on other pot-herbs, which are often the prey of caterpillars. As many insects, besides those bred on the leaves or in the walls, may destroy the fruit, the sugar with the corrosive sublimate, as already described, may be laid in the way of other insects, to all which it will prove a speedy death. Diligent inspection into their retreats is the most certain means of preventing the loss sustained by snails. Ants are prevented rising up the trees, by laying round the roots powdered chalk, or any other substance which by entangling their feet prevents their crossing it. Care should be taken to destroy their nests everywhere near the garden.

Hops are now become an article of so great consequence, that it deserves our particular attention. Early in its growth, when the vines begin to ascend the poles, a black fly preys on its leaves, frequently in such numbers as, by destroying the leaves, to interrupt the vegetation, much of the food of plants being absorbed by the leaves. The infusion of tobacco destroys them, or at least drives them away so effectually, that a plant almost totally stripped of its leaves has put out fresh leaves after the use of it. If care be not taken, they will again fall on the fresh leaves. As the flies lodge on the lower side of the leaves, they are protected from storms of rain, and therefore the infusion must be driven upwards by a forcing pump. As it is said that the expence of tobacco is too great, perhaps lime-water, or even water by itself, driven strongly against the leaves, might drive them away. The labour attending such experiments in a large plantation discourages others, without reflecting, that, if such means are used early, the flies may more easily be got rid of. Free ventilation is undoubtedly beneficial to all plants; and hence perhaps the particular advantages of drilling corns in rows a little distant. If alleys somewhat larger than common were made in the plantations of hops, there might be sufficient spaces left where the alleys cross one another to admit of setting damp straw, or other materials mixed with brimstone, soot, &c. on fire. Smoke itself is said to prevent the fly; and if so, it will still act more powerfully when mixed with such materials. It has been observed in Sweden, that the hops grow naturally among heaps of stones or fragments of rocks. They therefore advise to cover the ground round their roots with stones, which will prevent the insects laying their eggs near the roots in the ground, where they lay them to be protected during the winter. The stones will also preserve moisture at the roots during the summer. A rope cannot be drawn across a plantation of hops, as it can across a field of corn, in case of mildew. Here water to wash off the clammy juice that entices and feeds insects seems to be the only remedy. The plantation being well ventilated, may at least prevent the frequency of it. The forcing pump will most effectually wash off this exudation. Insects.

Cruelty to INSECTS. It does not appear upon what principle of reason and justice it is, that mankind have founded their right over the lives of every creature that is placed in a subordinate rank of being to themselves. Whatever claim they may have in right of food and self-defence (to which ought we to add the purposes of the naturalist, explained above?) did they extend their privileges no farther than those articles would reasonably carry them, numberless beings might enjoy their lives in peace, who are now hurried out of them by the most wanton and unnecessary cruelties. It is surely difficult to discover why it should be thought less inhuman to crush to death a harmless insect, whose single offence is that he eats that food which nature has prepared for his sustenance, than it would be were we to kill any bulky creature for the same reason. There are few tempers so hardened to the impressions of humanity, as not to shudder at the thought of the latter; and yet the former is universally practised without the least check of compassion. This seems to arise from the gross error of supposing, that every creature is really in itself contemptible, which happens to be clothed with a body infinitely disproportionate to our own, not considering that *great* and *little* are merely relative terms. But the inimitable Shakespeare would teach us, that

> ——the poor beetle that we tread upon,
> In corp'ral suff'rance, feels a pang as great
> As when a giant dies——

And indeed there is every reason to believe that the sensations of many insects are as exquisite as those of creatures of far more enlarged dimensions, perhaps even

Insect ‖ Insolvent.

more so. The millepede, for instance, rolls itself round upon the slightest touch, and the snail draws in its horns upon the least approach of our hand. Are not these the strongest indications of *their* sensibility? and is it any evidence of *ours*, that we are not therefore induced to treat them with a more sympathising tenderness?

Montaigne remarks, that there is a certain claim of kindness and benevolence which every species of creatures has a right to from us. It is to be regretted that this general maxim is not more attended to in the affair of education, and pressed home upon tender minds in its full extent and latitude. We are far, indeed, from thinking, that the early delight which children discover in tormenting flies, &c. is a mark of any *innate* cruelty of temper, because this turn may be accounted for on other principles; and it is entertaining unworthy notions of the Deity, to suppose he forms mankind with a propensity to the most detestable of all dispositions: but most certainly, by being unrestrained in sports of this kind, they may acquire by habit what they never would have learned from nature, and grow up into a confirmed inattention to every kind of suffering but their own. Accordingly the supreme court of judicature at Athens thought an instance of this sort not below its cognizance, and punished a boy for putting out the eyes of a poor bird that had unhappily fallen into his hands.

It might be of service, therefore, it should seem, in order to awaken as early as possible in children an extensive sense of humanity, to give them a view of several sorts of insects as they may be magnified by the assistance of glasses, and to show them that the same evident marks of wisdom and goodness prevail in the formation of the minutest insect, as in that of the most enormous leviathan: that they are equally furnished with whatever is necessary, not only to the preservation, but the happiness of their beings in that class of existence which Providence has assigned them: in a word, that the whole construction of their respective organs distinctly proclaims them the objects of the divine benevolence, and therefore that they justly ought to be so of ours.

INSERTION, in *Anatomy*, the close conjunction of the vessels, tendons, fibres, and membranes of the body with some other parts.

INSINUATION denotes a cunning and covert way of creeping into any person's favour.

Insinuation of a Will, among civilians, is the first production of it, or the leaving it with the register, in order to its probate. See Will.

INSIPID, Tasteless, that which has nothing in it pungent enough to affect the palate, tongue, &c. and to occasion that sensation we call *tasting*.

INSITION, Insitio, in *Botany*, denotes the same with engrafting; viz. the act of inserting and uniting a cyon, bud, or the like, in the substance of the stock.

INSOLATION, in *Pharmacy*, a method of preparing certain fruits, drugs, &c. by exposing them to the heat of the sun's rays; either to dry, to maturate, or to sharpen them; as is done in vinegar, figs, &c.—The word comes from the Latin verb *insolare*, which is used by Pliny and Columella, and signifies *to expose to the sun*.

INSOLVENT, a term applied to such persons as have not wherewithal to pay their just debts. A person dying, and not leaving estate sufficient to discharge these, is said to die insolvent. Insolvent ‖ Inspiration.

Trial by INSPECTION, or Examination, is when, for the greater expedition of a cause, in some point or issue, being either the principal question, or arising collaterally out of it, but being evidently the object of sense, the judges of the court, upon the testimony of their own senses, shall decide the point in dispute. For, when the affirmative or negative of a question is matter of such obvious determination, it is not thought necessary to summon a jury to decide it; who are properly called in to inform the conscience of the court of dubious facts; and therefore, when the fact, from its nature, must be evident to the court either from ocular demonstration or other irrefragable proof, there the law departs from its usual resort, the verdict of 12 men, and relies on the judgment of the court alone. As in case of a suit to reserve a fine for non-age of the cognizor, or to set aside a statute or recognizance entered into by an infant; here, and in other cases of the like sort, a writ shall issue to the sheriff, commanding him that he constrain the said party to appear, that it may be ascertained by the view of his body by the king's justices, whether he be of full age or not: *Ut per aspectum corporis sui constare poterit justiciariis nostris, si prædictus an sit plenæ ætatis necne.* If however, the court has, upon inspection, any doubt of the age of the party (as may frequently be the case), it may proceed to take proofs of the part; and, particularly, may examine the infant himself upon an oath of *voir dire, veritatem dicere;* that is, to make true answers to such questions as the court shall demand of him; or the court may examine his mother, his god-father, or the like.

INSPECTOR, a person to whom the care and conduct of any work is committed.

Inspectors, in the Roman law, were such persons as examined the quality and value of lands and effects, in order to the adjusting or proportioning taxes and impositions to every man's estate.

The Jews also have an officer, in their synagogue, whom they call *inspector*, חזן, *khhazen*. His business consists principally in inspecting or overlooking the prayers and lessons, in preparing and showing them to the reader, and in standing by him to see he reads right: and, if he makes mistakes, he is to correct him.

INSPIRATION, among divines, &c. implies the conveying of certain extraordinary and supernatural notices or motions into the soul; or it denotes any supernatural influence of God upon the mind of a rational creature, whereby he is formed to any degree of intellectual improvements, to which he could not, or would not, in fact have attained in his present circumstances, in a natural way. Thus the prophets are said to have spoken by divine inspiration.

Some authors reduce the inspiration of the sacred writers to a particular care of Providence, which prevented any thing they had said from failing or coming to nought; maintaining, that they never were really inspired either with knowledge or expression.

According to M. Simon, inspiration is no more than a direction of the Holy Spirit, which never permitted the sacred writers to be mistaken.

It is a common opinion, that the inspiration of the

Inspiration. Holy Spirit regards only the matter, not the style or words; and this seems to fall in with M. Simon's doctrine of direction.

Theological writers have enumerated several kinds of inspiration; such as an inspiration of superintendency, in which God does so influence and direct the mind of any person, as to keep him more secure from error in some various and complex discourse, than he would have been merely by the use of his natural faculties; plenary superintendent inspiration, which excludes any mixture of error at all from the performance so superintended; inspiration of elevation, where the faculties act in a regular, and, as it seems, in a common manner, yet are raised to an extraordinary degree, so that the composure shall, upon the whole, have more of the true sublime or pathetic, than natural genius could have given; and inspiration of suggestion, when the use of the faculties is superseded, and God does, as it were, speak directly to the mind, making such discoveries to it as it could not otherwise have obtained, and dictating the very words in which such discoveries are to be communicated, if they are designed as a message to others. It is generally allowed that the New Testament was written by a superintendent inspiration; for without this the discourses and doctrines of Christ could not have been faithfully recorded by the evangelists and apostles; nor could they have assumed the authority of speaking the words of Christ, and evinced this authority by the actual exercise of miraculous powers: and besides, the sacred writings bear many obvious internal marks of their divine original, in the excellence of their doctrines, the spirituality and elevation of their design, the majesty and simplicity of their style, the agreement of their various parts, and their efficacy on mankind; to which may be added, that there has been in the Christian church, from its earliest ages, a constant tradition, that the sacred books were written by the extraordinary assistance of the Spirit, which must at least amount to superintendent inspiration. But it has been controverted whether this inspiration extended to every minute circumstance in their writings, so as to be in the most absolute sense plenary. Jerome, Grotius, Erasmus, Episcopius, and many others, maintain that it was not; whilst others contend, that the emphatical manner in which our Lord speaks of the agency of the Spirit upon them, and in which they themselves speak of their own writings, will justify our believing that their inspiration was plenary, unless there be very convincing evidence brought on the other side to prove that it was not: and if we allow, it is said, that there were some errors in the New Testament, as it came from the hands of the apostles, there may be great danger of subverting the main purpose and design of it; since there will be endless room to debate the importance both of facts and doctrines.

Among the Heathens, the priests and priestesses were said to be divinely inspired, when they gave oracles.—The poets also laid claim to it; and to this end they always invoked Apollo and the Muses at the beginning of any great work.

Inspiration, in *Physic*, is understood of that action of the breast, by which the air is admitted within the lungs; in which sense, inspiration is a branch of respiration, and stands opposed to Exspiration. Inspiration ‖ Instauration.

This admission of the air depends immediately on its spring or elasticity, at the time when the cavity of the breast is enlarged by the elevation of the thorax and abdomen, and particularly by the motion of the diaphragm downwards: so that the air does not enter the lungs, because they are dilated; but those dilate, because the air enters within them. Nor is it the dilatation of the breast which draws in the air, as is commonly thought, though this is a condition absolutely necessary to inspiration; but an actual intrusion of the air into the lungs. See Respiration.

INSPISSATING, in *Pharmacy*, an operation whereby a liquor is brought to a thicker consistence, by evaporating the thinner parts.

INSPRUCK, a city of Germany, in the circle of Austria, and capital of the county of Tyrol, received its name from the river Inn, which runs by it. It has a noble castle or palace, formerly the residence of the archdukes of the house of Austria, with a cathedral where they are buried. The houses, though built in the German taste, are rather handsomer; and the streets, though narrow, are remarkably well paved. For the defence of this city the inhabitants can place but little confidence in their fortifications, which are very trifling. They seem rather to depend on the natural fastnesses of their country; which appear indeed to form a barrier, so perfectly inaccessible to any enemy, that even the great Gustavus Adolphus, after having overrun with his victorious arms the other parts of Germany, could never make any impression upon this. It has about 10,000 inhabitants, and it is seated in a pleasant valley. E. Long. 11. 30. N. Lat. 47. 16.

INSTALLATION, the act of giving visible possession of an order, rank, or office, by placing in the proper seat. See Instalment.

INSTALMENT, a settling or instating any person in a dignity. The word is derived from the Latin *in*, and *stallum*, a term used for a seat in church, in the choir, or a seat or bench in a court of justice, &c.; though Vossius is of opinion the word is of German origin.

Instalment is chiefly used for the induction of a dean, prebendary, or other ecclesiastical dignitary, into the possession of his stall, or proper seat, in the cathedral church to which he belongs. This is sometimes also called *installation*.

Instalment is likewise used for the ceremony, whereby the knights of the Garter are placed in their rank, in the chapel of St George at Windsor.

INSTANT, a part of duration in which we perceive no succession; or it is that which takes up the time only of one idea in our minds.

INSTAURATION, the re-establishment, or restauration of a religion, a church, or the like, to its former state. The word is by some derived from the old Latin *instaurum*, which signified the "stock" of things necessary for the tilling and managing of grounds; as cattle, tools, harness, &c. But the word *instaurum* is only of the middle age: *instauratio* is of much greater antiquity, and by some derived from *instar*, "like," as importing a thing's being brought

to

Instauration || Instinct.

to its former likeness or appearance. See RESTAURATION.

INSTEP, in the manege, is that part of a horse's hind leg, which reaches from the ham to the pastern-joint.

1 Definition.

INSTINCT, a certain power or disposition of mind, by which, independent of all instruction or experience, without deliberation, and without having any end in view, animals are unerringly directed to do spontaneously (A) whatever is necessary for the preservation of the individual or the continuation of the kind. Such in the human species is the instinct of sucking exerted immediately after birth; and such in the inferior creation is the instinct by which insects invariably deposit their eggs in situations most favourable for hatching and affording nourishment to their future progeny. These operations are necessary for the preservation of the individual and the continuation of the kind; but neither the infant nor the insect knows that they are necessary: they both act without having any end in view, and act uniformly without instruction and without experience.

The actions of the inferior animals are generally directed by instinct; those of man by reason. This at least is the case with respect to men in a state of civilization; in the savage state they are probably little less the slaves of instinct than the brutes themselves.

2 Different opinions respecting human instincts.

Concerning *human* instincts, indeed, philosophers differ widely in opinion; some maintaining that man is endowed with a greater number of instincts than any species of brutes; whilst others deny that in human nature there is any power or propensity at all which can properly be called instinctive.

This diversity of opinion may easily be traced to its source. There are not many original thinkers in the world. The greater part even of those who are called *philosophers*, implicitly adopt the opinions of certain masters whose authority they deem sufficient to supply the place of argument; and having chosen their respective guides, each maintains with zeal what his master taught, or is supposed to have taught. When Locke so successfully attacked the doctrine of innate ideas and innate principles of speculative truth, he was thought by many to have overturned at the same time all innate principles whatever; to have divested the human mind of every passion, affection, and instinct; and to have left in it nothing but the powers of sensation, memory, and intellect. Such, we are persuaded, was not his intention; nor is there any thing in his immortal work which, when interpreted with candour, appears to have such a tendency.

3 The cause of that difference.

In our opinion, great part of the *Essay on Human Understanding* has been very generally misunderstood. Much of its merit, however, was soon discovered; and mankind, finding philosophy disencumbered of the barbarous jargon of the schools, and built upon a few self-evident principles, implicitly embraced every opinion advanced, or which they *supposed* to be advanced, by the illustrious author; especially if that opinion was contrary to any part of the scholastic system which had so long been employed to perplex the understanding and to veil absurdity. Hence arose many philosophers of eminence both at home and abroad; who maintained, as they imagined, upon the principles of Locke, that in the human mind there are no instincts, but that every thing which had been usually called by that name is resolvable into association and habit. This doctrine was attacked by Lord Shaftesbury, who introduced into the theory of mind, as faculties derived from nature, a sense of beauty, a sense of honour, and a sense of ridicule; and these he considered as the tests of speculative truth and moral rectitude. His lordship's principles were in part adopted by Mr Hutchison of Glasgow, who published a system of moral philosophy, founded upon a sense or instinct, to which he gave the name of the *moral sense;* and the undoubted merit of his work procured him many followers. Instinct.

Men generally run from one extreme to another. It being now discovered, or at least supposed, that the human mind is endowed with instinctive principles of action, a sect of philosophers soon afterwards arose, who maintained with much vehemence that it is likewise endowed with instinctive principles of belief; and who built a system of metaphysics, if such it may be called, upon a number of innate, distinct, and independent senses. The rise of this sect is well known. Berkeley and Hume had adopted Locke's doctrine respecting the origin of our ideas; and had thence deduced consequences supposed to be dangerous in themselves, but which, it was thought, could not be denied without refusing the principles from which they were inferred. The foundation of the instinctive system being thus laid, the system itself was rapidly carried to a height far beyond what seems to have been the intention of its excellent author; and reason was well nigh banished from the regions of philosophy. For such a proceeding it is not difficult to assign the cause. The instinctive scheme requires much less labour of investigation than the systems of Locke and the ancients; for upon the principles of it, when carried to its utmost extent, every phenomenon in human nature is thought to be sufficiently accounted for, by supposing

(A) As nothing is of greater importance in the philosophy of mind than accurate definitions, it may not be improper to observe, that through the whole of this article the word *spontaneous* is to be taken in the sense in which it is used in the following extracts from *Hales's Origin of Mankind:* "Many analogical motions in animals, though I cannot call them *voluntary*, yet I see them *spontaneous:* I have reason to conclude, that these are *not* simply *mechanical*." "The sagacities and instincts of brutes, the *spontaneousness* of many of their motions, are not explicable, without supposing some active determinate power connected to and inherent in their spirits, of a higher extraction than the bare natural modification of matter." If this be attended to, our definition of instinct will be found perfectly consonant to that which has been given by the author of *Ancient Metaphysics*. "Instinct (he says) is a determination given by Almighty Wisdom to the mind of the brute, to act in such or such a way, upon such or such an occasion, without intelligence, without knowledge of good or ill, and without knowing for what end or purpose he acts."

Instinct. it the effect of a particular instinct implanted in the mind for that very purpose. Hence in some popular works of philosophy we have a detail of so many distinct internal *senses*, that it requires no small strength of memory to retain their very names: besides the *moral sense*, we have the sense of *beauty*, the sense of *deformity*, the sense of *honour*, the *hoarding* sense, and a thousand others which it is needless here to mention.

This new system, which converts the philosophy of mind into mere history, or rather into a collection of facts and anecdotes, though it has made a rapid progress, is not yet universally received. It has been opposed by many speculative men, and by none with greater skill than Dr Priestley; who maintains, with the earliest admirers of Locke, that we have from nature no innate sense of truth, nor any instinctive principle of action; that even the action of sucking in new-born infants is to be accounted for upon principles of mechanism; and that the desire of the sexes is merely association.

4 Instinct confounded with reason and with mechanism.

Whilst men, eminent for candour as well as for science, have thus been disputing the limits between instinct and reason in the human mind, and endeavouring to ascertain the actions which result from each, two writers of name, treating of that subject, have lately advanced opinions, which, if admitted as just, must render the dispute henceforth ridiculous, and put an end for ever to all moral enquiries. Mr Smellie, in a work which he calls *The Philosophy of Natural History*, affirms, that between *instinctive* and *rational motives* no distinction exists, but that the reasoning faculty itself is the necessary result of instinct; and Dr Reid, in his *Essays on the Active Powers of Man*, by attributing to *instinct* the action of breathing, seems to confound that principle with mere mechanism.

5 These three principles accurately distinguished from each other.

That reason, instinct, and mechanism, are all essentially different from one another, has hitherto been universally allowed; and it appears not to be a task of much difficulty to point out in what respect each of them differs from the other two. Actions performed with a view to accomplish a certain *end* are called *rational* actions, and the end in view is the *motive* to their performance. *Instinctive* actions have a *cause*, viz. the internal impulse by which they are spontaneously performed; but they cannot be said to have a *motive*, because they are not done with any *view to consequences*. Actions *automatic* have likewise a cause; but that cause is not internal impulse, but *mere mechanism*, by which they are performed without any spontaneity of the agent. Thus, a man gives charity in order to relieve a person from want; he performs a grateful action as a duty incumbent on him; and he fights for his country in order to repel its enemies. Each of these actions is performed from a *motive*, and therefore they are all *rational* actions. An infant is impelled to suck the breast, but he knows not that it is necessary for his preservation; a couple of young savages go together, for the first time, without any view to offspring or any *determinate* idea of enjoyment. These actions have *no* motive, and therefore are not rational: but as they are performed by a *spontaneous exertion* of the agents, they are not to be attributed to mere mechanism; they are therefore *instinctive* actions. A man breathes without any motive, without any spontaneous exertion of his own, and that as well when he is asleep as when he is awake. The action of breathing therefore is neither rational nor instinctive, but merely *automatic* or *mechanical*. All this seems to be very plain. To talk of the motives of actions performed by instinct, in an argument intended to prove that between reason and instinct there is no difference, is either to beg the question or to pervert language. If the author of the Philosophy of Natural History chooses to call the *impulse* which prompts the infant to suck by the name of *motive*, he only uses an English word improperly; if it be his intention to affirm that such a motive is not totally and essentially different from that which prompts a man to give charity or to fight for his country, he affirms what all mankind know to be false (B).

Instinct.

Having thus ascertained what we mean by instinct, we shall now proceed to inquire, Whether or not there be any instinctive principles in man? But in order to proceed upon sure grounds, it will be proper to consider, in the first place, such actions of the inferior animals as are *generally* allowed to be instinctive: for an attempt has lately been made to prove, that even these actions are the offspring of reason influenced by motives; and that *instinct*, as we have defined it, is a mere imaginary principle, which has no existence either in man or brute.

It

(B) The author of *Ancient Metaphysics*, whose learned work contains more good sense on this subject than any other book which we have seen, thus distinguishes between reason and instinct: "With respect to the mere animal, it is evident, that he pursues nothing but what is conducive either to the preservation of the animal life or to the continuation of the kind. On the other hand, the object which the intellectual mind pursues, is the *fair* and the *handsome*; and its happiness consists in the contemplation of these. And though it pursue also what is *useful* and *profitable* for the being and well-being of the animal life, yet it is for the sake, not of the animal life itself, but of the το καλον, or *beautiful*; which therefore is the ultimate object of its pursuit in all things.

"Another material difference in practice betwixt the animal and intellectual mind is, that every action of intellect proceeds from an opinion formed concerning what is good or ill, beautiful or the contrary, in the action. When we do so, we are said to act from *will*, which is always determined by some opinion formed of the kind I have mentioned: whereas, when we act from mere appetite or inclination, without deliberation or opinion formed, we act as the brute does always; for he has no *will*, but is prompted to action by natural impulse, or ὁρμη, as the Greeks call it.

"A third very material difference is, that intellect, in all its operations, proposes ends, and devises means to accomplish these ends; whereas the instinct of the brute proceeds without consideration either of ends or means."

Instinct. 6 Instances of instinct in animals.

It has been said that caterpillars, when shaken off a tree in every direction, instantly turn round towards the trunk and climb up, though they had never formerly been on the surface of the ground. This is a striking instance of instinct. On the tree, and not upon the ground, the caterpillar finds its food. If therefore it did not turn and climb up the trunk it would inevitably perish; but surely the caterpillar knows not that such an exertion is necessary to its preservation; and therefore it acts not from motives, but from blind impulse. The bee and the beaver are endowed with an instinct which has the appearance of foresight. They build magazines, and fill them with provisions; but the foresight is not theirs. Neither bees nor beavers know any thing of futurity. The solitary wasp digs holes in the sand, in each of which she deposits an egg. Though she certainly knows not that an animal is to proceed from that egg, and still less, if possible, that this animal must be nourished with other animals, she collects a few small green worms, which she rolls up in a circular form, and fixes in the hole in such a manner that they cannot move. When the wasp-worm is hatched, it is amply stored with the food which nature has destined for its support. The green worms are devoured in succession; and the number deposited is exactly proportioned to the time necessary for the growth and transformation of the wasp-worm into a fly; when it issues from the hole, and is capable of procuring its own nourishment. This instinct of the parent-wasp is the more remarkable, that she feeds not upon flesh herself. Birds of the same species, unless when restrained by peculiar circumstances, uniformly build their nests of the same materials, and in the same form and situation, though they inhabit very different climates; and the form and situation are always exactly suited to their nature, and calculated to afford them shelter and protection. When danger, or any other circumstance peculiar to certain countries, renders a deviation from the common form or situation of nests necessary, that deviation is made in an equal degree, and in the very same manner, by all the birds of one species; and it is never found to extend beyond the limits of the country where alone it can serve any good purpose. When removed by necessity from their eggs, birds return to them with haste and anxiety, and shift them so as to heat them equally; and it is worthy of observation, that their haste to return is always in proportion to the cold of the climate. But do birds reason, and all of the same species reason equally well, upon the nature and extent of danger, and upon the means by which it can best be avoided? Have birds any notion of equality, or do they know that heat is necessary for incubation? No: in all these operations men recognise the intentions of nature; but they are hid from the animals themselves, and therefore cannot operate upon them as motives.

Of the instinct of animals we shall give one instance more in the elegant and perspicuous language of Dr Reid. "Every manufacturing art among men (says that able writer) was invented by some man, improved by others, and brought to perfection by time and experience. Men learn to work in it by long practice, which produces a habit. The arts of men vary in every age and in every nation, and are found only in those men who have been taught them. The manufactures

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of animals differ from those of men in many striking particulars. No animal of the species can claim the invention; no animal ever introduced any new improvement, or any variation from the former practice; every one of the species has equal skill from the beginning, without teaching, without experience, and without habit; every one has its art by a kind of inspiration. I do not mean that it is inspired with the *principles* or *rules* of the art, but with the ability of *working* in it to perfection, without any knowledge of its principles, rules, or end. The work of every animal is indeed like the works of nature, perfect in its kind, and can bear the most critical examination of the mechanic or the mathematician; of which a honeycomb is a striking instance.

7 Remarkable instance in the bee.

"Bees, it is well known, construct their combs with small cells on both sides, fit both for holding their store of honey and for rearing their young. There are only three possible figures of the cells, which can make them all equal and similar, without any useless interstices. These are the equilateral triangle, the square, and the regular hexagon. Of the three, the hexagon is the most proper, both for convenience and strength. Bees, as if they knew this, make their cells regular hexagons. As the combs have cells on both sides, the cells may either be exactly opposite, having partition against partition, or the bottom of a cell may rest upon the partitions between the cells on the other side, which will serve as a buttress to strengthen it. The last way is the best for strength; accordingly the bottom of each cell rests against the point where three partitions meet on the other side, which gives it all the strength possible. The bottom of a cell may either be one plane, perpendicular to the side partitions; or it may be composed of several planes, meeting in a solid angle in the middle point. It is only in one of these two ways that all the cells can be similar without losing room. And, for the same intention, the planes, of which the bottom is composed, if there be more than one, must be three in number, and neither more nor fewer. It has been demonstrated, that by making the bottoms of the cells to consist of three planes meeting in a point, there is a saving of material and labour no way inconsiderable. The bees, as if acquainted with these principles of solid geometry, follow them most accurately: the bottom of each cell being composed of three planes, which make obtuse angles with the side partitions, and with one another, and meet in a point in the middle of the bottom; the three angles of this bottom being supported by three partitions on the other side of the comb, and the point of it by the common intersection of these three partitions. One instance more of the mathematical skill displayed in the structure of a honey-comb deserves to be mentioned. It is a curious mathematical problem, *at what precise angle* the three planes which compose the bottom of a cell ought to meet, in order to make the greatest possible saving of material and labour. This is one of those problems belonging to the higher parts of mathematics, which are called problems of *maxima* and *minima*. The celebrated *M'Laurin* resolved it by a fluxionary calculation, which is to be found in the Transactions of the Royal Society of London, and determined precisely the angle required. Upon the most exact mensuration which the subject could admit,

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he afterwards found, that it is the very angle in which the three planes in the bottom of the cell of a honey-comb do actually meet.

"Shall we ask here, Who taught the bees the properties of solids, and to resolve problems of *maxima* and *minima*? If a honey-comb were a work of human art, every man of common sense would conclude, without hesitation, that he who invented the construction must have understood the principles on which it was constructed. We need not say that bees know none of these things. They work most geometrically without any knowledge of geometry; somewhat like a child, who by turning the handle of an organ makes good music without any knowledge of music. The art is not in the child, but in him who made the organ. In like manner, when a bee makes its combs so geometrically, the geometry is not in the bee, but in that great Geometrician who made the bee, and made all things in number, weight, and measure."

3 Which cannot be confounded with the operations of reason.

We have given a full detail of the structure of a honey-comb, because it is an effect of instinct which cannot be confounded with the operations of reason. The author of *The Natural History of Animals*, justly offended with that theory which treats of *instinctive motives*, which represents the human mind as a *bundle* of instincts, and of which the object seems to be to degrade mankind to the level of brutes, has very laudably exerted his endeavours to detect its weakness, and to expose it to contempt. But in avoiding one extreme, he seems to have run into the other; and whilst he maintains the rights of his own species, he almost raises the brutes to the rank of men. "It is better (he says) to share our rights with others than to be entirely deprived of them." This is certainly true; and no good man will hesitate to prefer his theory to that of his antagonist; but we see no necessity for adopting either; the phenomena may be accounted for without degrading reason to the level of instinct, or elevating instinct to the dignity of reason.

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9 On some occasions the inferi animals reason; but they perform their natu ral operations by instinct.

We shall readily allow to Locke (c), that some of the inferior animals seem to have perceptions of particular truths, and within very narrow limits the faculty of reason: but we see no ground to suppose that their natural operations are performed with a view to consequences; and therefore cannot persuade ourselves with this historian of theirs, that these operations are the result of a train of reasoning in the mind of the animal.

He acknowledges indeed, that their reasoning and thinking powers are remarkably deficient when compared with those of men; that they cannot take so full

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(c) "For if they have any ideas at all, and are not mere machines, as some would have them, we cannot deny them to have some reason. It seems as evident to me, that some of them do, in certain instances, reason, as that they have sense; but it is only in particular ideas, just as they received them from the senses. They are the best of them tied up within those narrow bounds, and have not, as I think, the faculty to enlarge them by any kind of abstraction." *Essay on Human Understanding*, book ii. chap. xi.

This is in part a just observation, and serves to account for many phenomena which later writers have derived from instinct. The author of The Philosophy of Natural History had "a cat that frequented a closet, the door of which was fastened by a common iron latch. A window was situated near the door. When the door was shut, the cat gave herself no uneasiness. As soon as she tired of her confinement, she mounted on the sole of the window, and with her paw dexterously lifted the latch and came out." This practice, which we are told continued for years, must have been the consequence of what Locke calls reasoning in particular ideas. It could not be the effect of instinct; for instinct is adapted only to a state of nature, in which cats have neither latches to lift nor doors to open; and as it is not said that the animal attempted to lift the latches of other doors, we are not authorised to infer that this particular action was the consequence of reasoning in ideas enlarged by abstraction: the cat had repeatedly seen one door opened by an exertion which she was capable of imitating. Yet that animals have no power of enlarging their ideas, is a position, of the truth of which, though it is advanced by Locke, we are by no means confident. It is well known that crows feed upon several kinds of shell fish when within their reach; and that they contrive to break the shell by raising the fish to a great height, and letting it drop upon a stone or a rock. This may perhaps be considered as pure instinct directing the animal to the proper means of acquiring its food. But what is to be thought of the following fact, which was communicated to us by a gentleman whose veracity is unquestioned, and who, being totally unacquainted with the theories of philosophers, has of course no favourite hypothesis to support? In the spring of the year 1791, a pair of crows made their nest in a tree, of which there are several planted round his garden; and in his morning-walks he had often been amused by witnessing furious combats between them and a cat. One morning the battle raged more fiercely than usual, till at last the cat gave way and took shelter under a hedge, as if to wait a more favourable opportunity of retreating to the house. The crows continued for a short time to make a threatening noise; but perceiving that on the ground they could do nothing more than threaten, one of them lifted a stone from the middle of the garden, and perched with it on a tree planted in the hedge, where she sat watching the motions of the enemy of her young. As the cat crept along under the hedge, the crow accompanied her by flying from branch to branch and from tree to tree; and when at last puss ventured to quit her hiding-place, the crow, leaving the tree, and hovering over her in the air, let the stone drop from on high on her back. That the crow on this occasion reasoned, is self-evident; and it seems to be little less evident, that the ideas employed in her reasoning were enlarged beyond those which she had received from her senses. By her senses, she may have perceived, that the shell of a fish is broken by a fall; but could her senses inform her, that a cat would be wounded or driven off the field by the fall of a stone? No: from the effect of the one fall preserved in her memory, she must have inferred the other by her power of reasoning.

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Instinct. a review of the past, nor look forward with so penetrating an eye to the future; that they do not accumulate observation upon observation, or add the experience of one generation to that of another: that their manners do not vary nor their customs fluctuate like ours; and that their arts always remain the same, without degeneracy and without improvement. "The crow (he observes) always builds its nest in the same way; every hen treats her young with the same measure of affection; even the dog, the horse, and the sagacious elephant, seem to act rather mechanically than with design. From such hasty observations as these, it has been inferred (he says), that the brutes are directed in their actions by some mysterious influence, which impels them to employ their powers unintentionally in performing actions beneficial to themselves, and suitable to their nature and circumstances."

And are these observations indeed hasty? and is this inference ill founded? To us the matter appears quite otherwise. If the arts of brutes and other animals have always remained the same without degeneracy, and without improvement; and if they be at the same time the result of reasoning, they must either be so perfect that they cannot be improved, or so imperfect that they cannot degenerate. That the structure of a honey-comb is imperfect no man has ever imagined. We have seen, that as far as we are capable of discerning the end which it is intended to serve, it is the most perfect structure possible: and therefore, if it be the result of the reasoning of the bee, the author must retract his assertion respecting the extent of the reasoning and thinking powers of inferior animals; and instead of saying that they are remarkably deficient when compared with those of men, affirm that they are infinitely more perfect. No human art has yet arrived at such perfection as that it might not be improved; no architect has ever built a town, or constructed a magazine, which he could mathematically demonstrate to be of the very best possible form for the end intended, and so absolutely perfect as to be incapable of improvement.

10 The last-mentioned position controverted.

But the same author proceeds to affirm, that "the laws of analogical reasoning do not justify the idea that the brutes act, on any occasion, absolutely without design." Nay, he says, it seems more probable, "that the inferior animals, even in those instances in which we *cannot distinguish* the motives which actuate them, or the views with which they proceed, yet act with design, and extend their views, if not a great way, yet at least a certain length forward; than that they can be upon any occasion, such as in rearing of their young, building nests, &c. actuated merely by feeling, or overruled by some mysterious influence, under which they are nothing but insensible instruments." This last phrase is ambiguous. If by insensible instruments it be meant that the brutes are considered by the advocates for instinct as mere machines without the faculties of sensation and spontaneity, the author is combating a phantom of his own creation; for we believe an opinion so absurd is not now maintained by any man, (see BRUTE). But if by insensible instruments be meant such instruments as act spontaneously without being conscious of the *end* to which their actions lead, he appears not only to be egregiously mistaken in his conjecture respecting the design of brutes, but also to have advanced an hypothesis contradictory and inconsistent. Instinct.

11 Maintained, and

If it be true, that the inferior animals act with *design*, even in those instances in which we cannot distinguish their motives, their views may indeed extend but a little way when compared with infinity: but certainly they extend farther than ours; for there is no useful work of man constructed with such skill, but that, after it is finished, another man of equal education will be able to distinguish the general design of the artist. But if the inferior animals, on all occasions, act with design, we should be glad to know the design of the bees in forming the cells of their combs in the manner which we have so largely described. Do these little animals indeed know that a comb, consisting on both sides of hexagonal cells, with the bottom of each composed of several planes meeting in a certain solid angle, and so formed as that the bottom of a cell on the one side shall rest upon the partitions between the cells on the other side, is in all respects the most proper both for holding their stores of honey and for rearing their young? And do they likewise know, that its excellence arises from the precise figure and position of the cells, by which there is a very considerable saving of labour and materials, whilst the comb at the same time has the greatest possible strength, and the greatest possible capaciousness? If they know all this, and act with a view to these ends, it must indeed be confessed that bees are rational creatures, and that their thinking and reasoning powers far surpass those of men; for they have from the earliest ages made discoveries in the higher mathematics, which there is reason to believe were altogether unknown to the human race till the beginning of the present century, and which at this moment are beyond the comprehension of nine-tenths of mankind in the most enlightened nation on earth. If this be a conclusion too absurd to be admitted, there is no other alternative but either to suppose that by this artificial structure of their cells the bees have some other end in view, which we cannot distinguish; or to acknowledge that they are overruled by some mysterious influence, under which they are nothing but spontaneous agents, unconscious of the end to which their operations tend. Which of these conclusions is the most rational, we will not offer such an insult to the understanding of our readers, as to suppose the meanest of them capable of entertaining a doubt. That a honey-comb is constructed with design, we must readily admit; but the design is not in the bees, but in the Creator of the bees, who directs their operations to their own good, by what the author with great propriety terms a mysterious influence (D).

12 An objection to it.

But he thinks it an unanswerable argument in support

(D) Though this way of acting is undoubtedly mysterious, "yet it should not appear extraordinary even to a man who is not a philosopher, as we see examples of it daily in our own species: For a man under the direction of another of superior understanding, will use means to accomplish an end, without having any idea of either;

Instinct. port of his theory, that in the performance of those actions, in which animals are said to be guided by unerring instinct, different individuals display different modes of conduct; and in his opinion, to talk of instinctive principles which admit of improvement, and accommodate themselves to circumstauces, is merely to introduce new terms into the language of philosophy; for he affirms, that no such improvement or accommodation to circumstances can ever take place without a comparison of ideas and a deduction of inferences. It is probable that the author here alludes to those animals which, in their most important operations, are known to act differently in different countries. Thus the ostrich in Senegal, where the heat is excessive, neglects her eggs during the day, but sits upon them in the night. At the Cape of Good Hope, however, where the degree of heat is less, the ostrich, like other birds, sits upon her eggs both day and night. In countries infested with monkeys, many birds, which in other climates build in bushes and clefts of trees, suspend their nests upon slender twigs, and thus elude the rapacity of their enemies.

13 obviated. It may be thought, that a determination of the mind of the brute to act so variously upon different occasions, can hardly be conceived without judgment or intelligence. But before our author had so confidently affirmed that such accommodation to circumstances can never take place without a comparison of ideas and a deduction of inferences, he would have done well to consider how nature acts in other organized bodies, such as the vegetable. We see that a vegetable, reared in the corner of a dark cellar, will bend itself towards the light which comes in at the window; and if it be made to grow in a flower-pot, with its head downwards, it will turn itself into the natural position of a plant. Can it be supposed, that the plant, in either case, does what it does from any judgment or opinion that it is best, and not from a necessary determination of its nature? But, further, to take the case of bodies unorganized, how shall we account for the phenomena which chemistry exhibits to us? When one body unites with another, and then, upon a third being presented to it, quits the first, and unites itself with it, shall we suppose that this preference proceeds from any predilection or opinion that it is better to cleave to the one than to the other, from any comparison of ideas or deduction of inferences? Or shall we not rather say, that it proceeds from an original law of nature impressed upon it by that Being who mediately or immediately directs every motion of every the minutest atom in the universe? And if so, why may not instinct be an original determination of the mind of the animal, of which it is part of the nature or essence to accommodate itself to certain circumstances, on which depends the preservation of the individual, or the continuation of the kind? Indeed it cannot be otherwise, if we have defined instinct properly; for no man ever supposed, that when animals work instinctively, they act for no purpose. It is only affirmed that the purpose is not known to them. It is known, however, to the Author of instinct; who knows likewise that the same purpose must in different climates be promoted by different means, and who accordingly determines the operations of animals of the same species to be different under different circumstances. Instinct.

14 Instinct is capable of improvement. But though we cannot agree with this author when he affirms that no accommodation to circumstances can ever take place without a comparison of ideas, we readily admit that no faculty which is capable of improvement by observation and experience can in propriety of speech be termed instinct. Instinct being a positive determination given to the minds of animals by the Author of nature for certain purposes, must necessarily be perfect when viewed in connection with those purposes: and therefore to talk, as Mr Smellie does, of the *improvement* of instinct, is to perplex the understanding by a perversion of language. There is not, however, a doubt, but that reason may copy the works of instinct, and so far alter or improve them as to render them subservient to other purposes than those for which they were originally and instinctively performed. It was thus in all probability that man at first learned many of the most useful arts of life.

> "Thy arts of building from the bee receive;
> "Learn of the mole to plough, the worm to weave;
> "Learn of the little nautilus to sail,
> "Spread the thin oar, and catch the driving gale."

But the arts thus adopted by men are no longer the works of instinct, but the operations of reason influenced by motives. This is so obviously and undeniably true, that it has compelled the author last mentioned to confess, in that very section which treats of instincts improveable by experience, that "what men or brutes learn by experience, though this experience be founded on instinct, cannot with propriety be called instinctive knowledge, but knowledge derived from experience and observation. Instinct (he says) should be limited to such actions as every individual of a species exerts without the aid either of experience or imitation." This is a very just distinction between instinct and experience; but how to reconcile it with the fundamental principle of the author's theory we know not. It would certainly be a very arduous task; but it is a task from which we are happily relieved, as his theory and ours have little resemblance.

15 The question, Whether there be any occasions upon which man acts instinctively? examined. Having thus proved, we hope to the satisfaction of our readers, that there is such a principle as instinct in the inferior animals, and that it is essentially different from human reason; let us return to our own species, and inquire whether there be any occasions upon which man acts instinctively, and what these occasions are. This is a question of some difficulty, to which a complete and satisfactory answer will perhaps never be given, and to which we have not the vanity to think that such an answer will be given by us. The principle of *association* (to be explained afterwards under the article METAPHYSICS) operates so powerfully in man, and at so early a period of life, that in many cases it seems to be impossible to distinguish the effects of

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either; and indeed, in my opinion, by far the greater part of mankind are destined by God and nature to be governed in that way." *Ancient Metaphysics*, vol. iii. p. 352.

Instinct.

of habit from the operations of nature. Yet there are a few cases immediately connected with the preservation of the individual and the propagation of the kind, in which by a little attention these things may be distinguished. We have already given an instance in the sucking of a child, which we believe to be an operation performed by instinct. Dr Priestley, however, thinks differently. "The action of sucking (says he), I am confident, from my own observations, is not natural, but acquired." What observations they were which led him to this conclusion he has not told us, and we cannot imagine; but every observation which we ourselves have made, compels us to believe that an *attempt* to suck is natural to children. It has been observed by the author of the Philosophy of Natural History, that the instinct of sucking is not excited by any smell peculiar to the mother, to milk, or to any other substance; for that infants suck indiscriminately every thing brought into contact with their mouths. He therefore infers, that the *desire* of sucking is innate, and coeval with the appetite for air. The observation is certainly just: but a disciple of Dr Priestley's may object to the inference; for "in sucking and swallowing our food, and in many such instances, it is exceedingly probable (says the doctor), that the actions of the muscles are originally *automatic*, having been so placed by our Maker, that at first they are stimulated and contract mechanically whenever their action is requisite." This is certainly the case with respect to the motion of the muscles in the action of breathing; and if that action be of the same kind and proceed from the very same cause with the action of sucking, and if a child never show a desire to suck but when something is brought into contact with its mouth, Dr Priestley's account of this operation appears to us much more satisfactory than that of the authors who attribute it to instinct.

16 Instances of human actions undoubtedly instinctive.

But the actions of breathing and sucking seem to differ essentially in several particulars. They are indeed both performed by means of air; but in the former, a child for many months exerts no spontaneous effort, whilst a spontaneous effort seems to be absolutely necessary for the performance of the latter. Of this indeed we could not be certain, were it true that infants never exhibit symptoms of a *wish* to suck but when something is exactly in contact with their mouths; for the mere *act* of sucking *then* might well be supposed to be automatic and the effect of irritation: But this is not the case. A healthy and vigorous infant, within ten minutes of its birth, gives the plainest and most unequivocal evidence of a desire to suck, before any thing be brought into actual contact with its mouth. It stretches out its neck, and turns its head from side to side apparently in quest of *something*: and that the object of its pursuit is something which it may *suck*, every man may satisfy himself by a very convincing experiment. When an infant is thus stretching out its neck and moving its head, if any thing be made to touch any part of its face, the little creature will instantly turn to the object, and endeavour by quick alternate motions from side to side to seize it with its mouth, in the very same manner in which it always seizes the breast of its nurse, till taught by experience to distinguish objects by the sense of sight, when these alternate motions, being no longer useful, are no longer employed. If this be not an instance of pure instinct, we know not what it is. It cannot be the result of association or mechanism; for when the stretching of the neck takes place, nothing is in contact with the child's mouth, and no association which includes the act of sucking can have been formed. Associations of ideas are the consequences of simultaneous impressions frequently repeated; but when the child first declares, as plainly as it could do were it possessed of language, its wish to suck, it has not received a single impression with which that wish can possibly be associated.

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Were Dr Priestley to weigh these facts, of the truth of which we are certain, we doubt not that his well-known candour would make him retract the assertion, that *all* the actions which Dr Reid and others refer to instinct, are either automatic or acquired. The greater part of those actions, as well as of the apparently instinctive principles of belief, we have no doubt are acquired: but we are persuaded that a child sucks its nurse as a bee builds its cell, by instinct; for upon no other hypothesis can we account for the spontaneous efforts exerted in both these operations: and we think it no disgrace to our species, that in some few cases we should act from the same principle with the inferior creation, as nothing seems more true than that,

> ——Reason raise o'er instinct as we can;
> In this 'tis God that works, in that 'tis man.

We have said, that, in the savage state, the sexes go together for the first time by instinct, without any view to offspring, and perhaps with no *determinate* idea of enjoyment. This opinion, we believe, has been generally maintained; but it is controverted by Dr Hartley. "Here (says he) we are to observe, first, that when a general pleasurable state is introduced, either by direct impressions or by associated influences, the organs of generation must sympathize with this general state, for the same reasons as the other parts do. They must therefore be affected with vibrations in their nerves, which rise above indifference, into the limits of pleasure, from youth, health, grateful aliment, the pleasures of imagination, ambition, and sympathy, or any other cause which diffuses grateful vibrations over the whole system.—Secondly, as these organs are endued with a greater degree of sensibility than the other parts, from their make, and the peculiar structure and disposition of the nerves, whatever these be, we may expect that they should be more affected by those general pleasurable states of the nervous system than the other parts.—Thirdly, the distension of the cells of the *vesiculæ seminales* and of the *sinuses* of the *uterus*, which take place about the time of puberty, must make these organs more particularly irritable then." His fourth observation respects a state widely different from that of nature, and therefore is nothing to the purpose: but his fifth is, that "the particular shame which regards the organs of generation, may, when considered as an associated circumstance, like other pains, be so far diminished as to fall within the limits of pleasure, and add considerably to the sum total."

To this excellent and able writer we may allow the truth of these observations (though some of them might certainly be controverted); and yet deny his conclusion, that "they are sufficient to account for the

Instinct. general desires which are observable in young persons, and that those desires are of a factitious nature." For supposing every thing which he mentions to take place by mere mechanism and association; that the organs of generation are irritated, and certain cells and sinuses distended; the only inference which can be fairly drawn from such premises is, that at the age of puberty young men and women must from these causes experience certain feelings and wants which they knew not before; but surely mechanism and association cannot teach them the use of the organs of generation, or point out the only means by which their new feelings can be gratified: and therefore, as we see these means invariably pursued by all animals rational and irrational, without experience and without instruction, we must refer the mutual desire of the sexes to a higher principle than mere mechanism and association; and that principle can be nothing but instinct.

Besides these, we think the action of eating may be attributed to instinct. It is certainly performed by a spontaneous exertion of the proper organs; and that exertion is first made at a time of life when we have no conception of the end which it serves to accomplish, and therefore cannot be influenced by motives. It must indeed be confessed, that the first act of chewing is performed by a child, not for the purpose of masticating food, but to quicken the operation of nature in the cutting of teeth: and perhaps it may be said, that the pleasing sensation of *taste*, which is then first experienced, and afterwards remembered, prompts the child to continue at intervals the exertion of chewing after all his teeth are cut; so that though the act of eating is not performed with a *view* to the mastication of food or the nourishment of the body, it may yet be performed, not from any instinctive impulse, but merely from an early and deep-rooted association. But in answer to this it is sufficient to ask, Who taught the infant that the act of chewing will quicken the operation of nature in the cutting of teeth? Not reason, surely, nor experience; for an infant knows nothing of teeth or the manner in which they grow: and if it be granted, that for this purpose it was originally impelled by some internal and mysterious influence to perform the action of chewing, we are not inclined to deny that the operation may be continued for other purposes by means of association.

> In human works, though laboured on with pain,
> A thousand movements scarce one purpose gain;
> In God's, one single can its end produce,
> Yet serves to second too some other use.

This is sound philosophy confirmed by observation and daily experience: but though in the works of God, one principle produces many consequences, and though perhaps there is not a principle which falls under our cognizance more fruitful than that of association, yet if it be not sufficient to account for the *first act* of chewing, we cannot refer to it alone as to the source of that operation. Should it be said, that the gums of an infant are at the period of cutting teeth so irritable, that the moment any thing is applied to them the jaws perform a motion merely automatic, which we mistake for the spontaneous effect of instinct; still we would ask, What prompts the child to apply every thing to its mouth? Does the irritation of the gums contract the muscles of the arm? By a bigot for mechanism this might be said, were it true that the arm of an infant, like a piece of clock-work, is always so regularly moved as to bring its hand directly into contact with its gums: but this is far from being the case; an infant makes many unsuccessful efforts to reach its mouth, and does not accomplish its purpose till after repeated trials. Perhaps it may be alleged (for when men adopt a favourite hypothesis they will allege any thing in its support), that infants are taught to carry things to their mouths by the pleasing sensation received from the application of their nurses breasts, and continue the practice from habit and association. But it is certain that they do not begin this practice till teeth are forming in their gums; and then they use such things as they themselves carry to their mouths very differently from the breasts of their nurse: they constantly chew and bite their rattles, though they very seldom bite their nurses. As this practice cannot be begun from a principle of association, so it appears to us that it cannot be continued upon such a principle. Were the sensation experienced by an infant when chewing a hard substance a pleasing sensation, the remembrance of the pleasure might as a motive prompt it to repeat the operation: but it is obvious, that by pressing a gum, through which a tooth is making its way, against any thing hard, the infant must experience a painful sensation; and therefore the influence which impels it to continue this operation, must be something more powerful than pleasure or pain. Instinct.

17 There may be other actions instinctive which it is impossible to distinguish from the effects of habit.

These three actions, then, by which infants suck, by which they chew their food, and by which mankind are propagated, have undeniably their origin in instinct. There may be many other human actions which derive their origin from the same source; but in a state of civil society it is very difficult, if not impossible, to distinguish them from the effects of early habit.

Such, however, is the present impatience of that labour without which effects cannot be traced to their causes, that every phenomenon in human nature, which to former philosophers would have occasioned difficulty, is now thought to be sufficiently accounted for by referring it to some instinct as its particular cause; and he who can provide himself with a sufficient number of these instincts, for the reality of which he offers no proof, seats himself in the philosopher's chair, and dreams that he is dictating a system of science, whilst he is only retailing a collection of anecdotes. A philosopher of this school has lately carried the doctrine of instinctive principles so far, as to attribute the superiority of man over the other animals, chiefly to the great number of instincts with which his mind is endowed; and among these he reckons (not, we believe, as characteristic of our species in contradistinction to other animals, but as part of the instinctive bundle in the largeness of which our superiority consists) "the *voiding* of *urine* and *excrement*, *sneezing*, *retraction* of the muscles upon the application of any painful stimulus, the *moving* of the eyelids and other parts of the body." These (he says) are effects of original instincts, and essential to the existence of young animals. With this writer instinct is sometimes represented as looking into futurity, and acting upon motives which have hitherto been considered as the province of reason and the characteristic of man:

18 Actions erroneously attributed to instinct.

Instinct. man: here the same instinct is confounded with irritation and mechanism; and if this mode of philosophising continue in fashion, we shall not be surprised to find men, beasts, birds, and vegetables, considered by some other writer as nothing more than different species of the same genus of beings, that are all actuated by the great and universal principle of instinct. If sneezing and the retraction of the muscles upon the application of any painful stimulus be actions of instinct, there cannot be a doubt, upon the received principles of philosophy, but that the contraction of the leaves of the sensitive plant upon the application of any stimulus proceeds likewise from instinct: nay, a piece of leather must be endowed with instinct; for it too retracts upon the application of the painful stimulus of fire. All these are evidently similar effects produced by the same or similar causes; for in the operations of sneezing and retracting the muscles upon any painful application, there is not the least spontaneous exertion on our part, no co-operation of mind more than in the contraction of the leather and the plant. With respect to the voiding of urine and excrement, it is obvious, that at first these operations are performed without any effort of spontaneity; and that a voluntary power over the muscles which are subservient to them is very gradually acquired. Urine and excrement irritate the bladder and guts, which are supplied with branches of the same nerves that supply the abdominal muscles. But it is well known that the irritation of one branch of a nerve brings on a contraction of the muscles which are supplied by the other branches. Urine and excrement therefore are evidently expelled by the mechanical contractions of the organs of excretion; and to attribute these evacuations to *instinct*, is equally absurd as to say, that water or any other soft substance pent up in a vessel, and pressed equally on all sides, makes its escape by *instinct* through the easiest passage. It is difficult to guess what the author means by the instinctive motion of the eyelids and other parts of the body. There is a motion of the eyelids which is voluntary, and another which is involuntary. The former proceeds from some motive, to exclude too great a glare of light, or to guard the eye against a foreseen mischief, and is therefore the result of reason as distinguished from instinct: the latter is obviously the effect of association, which took place in early infancy and produced a habit. Infants for several days after birth do not wink with their eyes upon the approach of one's hand or any other substance; but after having experienced pain from too much light or any other thing which hurts the eye, and that pain having at first produced an automatic motion of the eyelids, the motion comes in time to be so closely associated with its cause, that the very appearance of the latter produces the former. In all this there is no instinct, nor any thing which resembles instinct: in the one case, the motion of the eyelids is in the strictest sense voluntary and rational; and in the other, it is either automatic or the effect of habit.

"The love of light (says the same writer) is exhibited by infants at a very early period. I have remarked evident symptoms of this attachment on the third day after birth. When children are farther advanced, marks of the various passions generally appear. The passion of fear is discoverable at the age of two months. It is called forth by approaching the hand to the child's eye, and by any sudden motion or unusual noise." It has likewise been said, that "an infant may be put into a fright by an angry countenance, and soothed again by smiles and blandishments;" and "that all these are cases of pure instinct." In reply to which, we scruple not to assert with Dr Priesley, that an infant (unless by an infant be meant a child who has a good deal of experience, and of course has made many observations on the connections of things) "is absolutely incapable of terror. I am positive (says he), that no child ever showed the least symptom of fear or apprehension till he had actually received hurts and had felt pain; and that children have no fear of any particular person or thing, but in consequence of some connection between that person or thing and the pain they have felt. If any instinct of this kind were more necessary than another, it would be the *dread of fire*. But every body must have observed, that infants show no sign of any such thing; for they will as readily put their finger to the flame of a candle as to any thing else, till they have been burned. But after some painful experience of this kind, their dread of fire, though undeniably the effect of association, becomes as quick and as effectual in its operations as if it were an original instinctive principle." We moreover do not hesitate to say, with the same great philosopher, that if it were possible always to beat and terrify a child with a placid countenance, so as never to assume that appearance but in those circumstances, and always to soothe him with what we call an angry countenance, this connection of ideas would be reversed, and we should see the child frightened with a smile and delighted with a frown. In fact, there is no more reason to believe that a child is naturally afraid of a frown, than that he is afraid of being in the *dark*; and of this children certainly discover no sign, till they have either found something disagreeable to them in the dark, or have been told that there is something dreadful in it.

The truth of these observations is so obvious, that we doubt not but they will carry conviction to the mind of every reader. For though it should be granted, that so early as on the third day after birth children exhibit symptoms of uneasiness upon the sudden exclusion of light, it would by no means follow that the *love* of light is in them instinctive. Light operates upon the eye by contact, and communicates to the infant a sensation of touch. If that sensation be pleasant, the child must necessarily feel some degree of uneasiness upon its removal, just as a full grown man must feel uneasy upon being deprived of any positive pleasure. But is *sensation*, or *pleasure*, or the *removal* of pleasure, pure instinct? No, surely.

Thus difficult is it to say in many cases what actions have their origin in instinct, and what are merely the effects of early association. But we think it may be safely affirmed, that no action, whether of man or brute, which is deliberately performed with a *view* to consequences, can with any propriety be said to proceed from instinct; for such actions are the effect of reason influenced by motives. Deliberation and instinct are obviously incompatible. To say with the author of the Philosophy of Natural History, "that, when we are stimu-

Instinct. lated by a particular instinct, instead of instantly obeying the impulse, another instinct arises in opposition, creates hesitation, and often totally extinguishes the *original motive* to action," is either to affirm what is apparently not true, or it is a gross perversion of language. *Motives* opposed to each other may create hesitation, and a powerful motive may counterbalance a feeble instinct; but of two or more instincts operating at the same time, and opposing each other, we have no conception. Instinct, if we choose to speak a language that is intelligible, means a certain impulse under the direction of Supreme Wisdom; and it is very little probable that such wisdom should give opposite impulses at the same instant. In the natural works of animals, which are confessedly under the influence of instinct, we perceive no symptoms of deliberation; but every one, when not interrupted by external violence, proceeds without hesitation in the direct road, to an end of which the animal itself knows nothing. The same would be the case with man were he under the guidance of instinct: and it is vain to say that the instinct of *fear* is daily counteracted by *ambition* and *resentment*, till it be proved that *fear*, *ambition*, and *resentment*, are really instincts. Of this, however, the author seems to have no doubt. Indeed his work is so liberally stored with those principles, so useful to every man who wishes to acquire the name of a philosopher without the labour of investigation, that not only *fear*, *ambition*, and *resentment*, but even *superstition*, *devotion*, *respect* for eminent characters, *avarice*, *hope*, *envy*, *benevolence*, and *sympathy*, are all, in his opinion, *instincts* simple or modified. The origin of fear we have already seen when examining the instincts said to exhibit themselves in early infancy: let us try if we cannot trace some other individuals of this numerous family to the same source of early associations.

19 Source of this error.

The case then seems to be as follows. We first perceive or suppose some real good, i. e. some fitness to promote our happiness, in those things which we love or desire. Hence we annex to those things the idea of pleasure; with which they come, in time, to be so closely associated in our minds, that they cannot ever after present themselves without bringing that idea along with them. This association likewise often remains even after that which first gave rise to it is quite forgotten, or perhaps does not exist. An instance or two will make this very clear. No man can be borne a lover of money; for in a state of nature money exists not: no man therefore can be born with our author's instinct of avarice, directed in the manner which the most *common* acceptation of that word denotes. Yet how many men are there in the world, who have as strong a desire for money as if that desire were innate and instinctive; who account so much money so much happiness; and who make the mere possession of gold and silver, without any thought or design of using them, the ultimate end of all their actions? This is not because the love of money is born with them, for that is impossible; but because they first perceive a great many advantages from the possession of money, whence they conceive a pleasure in having it. Hence they desire it, endeavour to obtain it, and feel an actual pleasure in obtaining and possessing it. Then, by dropping the intermediate steps between money and happiness, they join money and happiness immediately together, and content themselves with the fantastic pleasure of having it; making that which was at first pursued only as *means*, be to them an *ultimate end*, in which consists their happiness or misery. The same might be observed concerning the thirst after knowledge, fame, ambition, and most of the various pursuits of life. These are at first entered upon with a view to some farther end, but at length become habitual exercises; with which the idea of pleasure is so closely associated, that we continue the pursuit after the reason from which it was at first begun has entirely vanished from our minds. Hence also we may account for another of our author's *modified instincts*, the almost diabolical feeling of *envy*. Mr Locke observes, that there are some men entirely unacquainted with this passion. His observation we believe to be a just one; for most men that are used to reflection, remember the time when they were first under its influence; and though they did not, it is a thing very little likely that the beneficent Author of nature should have implanted in the human mind even the seeds of an instinct, which, in the emphatic language of The Rambler, "is mere unmixed and genuine evil." Envy is that pain which arises in the mind upon observing the success or prosperity of others; not however of *all* others indefinitely, but only of those with whom, upon some account or other, the envious person has once had a rivalship. But of such a feeling the origin is obvious; for when two or more persons are competitors for the same thing, the success of the one necessarily tends to the detriment of the other: hence the success of the one rival is in the mind of the other closely associated with pain or misery; and this association remaining after the rivalship which occasioned it has ceased, the person in whose mind envy is thus generated, always feels pain at the success of his rival even in affairs which have no relation to the original competition. Thus it is, that we are apt to envy those persons who refuse to be guided by our judgments, or persuaded by our arguments: For this is nothing else than a rivalship about the superiority of judgment; and we take a secret pride, both to let the world see, and in imagining ourselves, that in perspicuity and strength of judgment we have no superior.

Though the principle of association will be more fully explained in another place, there is one observation which must not be omitted here; it is, that we do not always, nor perhaps for the most part, make these associations ourselves, but learn them from others in very early life. We annex happiness or misery to certain things or actions, because we see it done by our parents or companions; and acquire principles of action by imitating those whom we esteem, or by being told, by those in whom we have been taught to place confidence, that such conduct will promote our happiness, and that the reverse will involve us in misery. Hence the son too often inherits both the vices and the virtues of his father as well as his estate; hence national virtues and vices, dispositions and opinions; and hence too it is, that habits formed before the period of distinct remembrance are so generally mistaken for natural instincts.

Men perform rational, instinctive, and automatic actions.

From the whole then of this investigation, we think ourselves warranted to conclude, that there is an essential difference between mechanism and instinct, and between both and reason; that mankind perform actions by

Instinct, Institutes.

by each of these principles, and that those actions ought to be carefully distinguished, and though the human mind is unquestionably endowed with a few instincts necessary to the preservation of the individual and the propagation of the race, that by far the greater part of those actions which are commonly said to proceed from instinct are merely the effects of early habits.

11 The danger of referring every phenomenon in human nature to a particular instinct as its ultimate cause.

We are likewise of opinion, that the present fashionable mode of referring almost every phenomenon in human nature to a particular instinct as its ultimate cause, is hurtful to science, as tending to check all further inquiry; and dangerous in morals, as making people implicitly follow, as the *dictates of nature* and *nature's God*, the *absurd*, *superstitious*, or *impious customs* of their respective countries.

INSTITUTES, in literary history, a book containing the elements of the Roman law.

The Institutes are divided into four books; and contain an abridgement of the whole body of the civil law, being designed for the use of students. See LAW *Index*.

INSTITUTE, in *Scots Law*. When by disposition or deed of entail a number of persons are called to the succession of an estate one after another, the person first named is called the *institute*, the others *substitutes*.

National INSTITUTE of France, was founded by a decree of the new constitution, and opened on the 7th of December 1795. The abolition of royalty naturally suggested to the new rulers of France, that it would likewise be proper to abolish every thing which had the remotest connexion with it. Condorcet therefore proposed that the seven old academies, such as those of sciences, of inscriptions, &c. which had the term *royal* prefixed to the whole of them, should give way to the establishment of one new academy of arts and sciences, under the title of the *National Institute*.

The academy, or institute, is to consist of 288 members, the half of whom are to have their residence in Paris, and the rest in the different departments, with 24 foreign members.

This academy is divided into three classes; these are divided each into three sections, and each of these again is to consist of 12 members.

The *first class* consists of 10 sections, which are to preside over mathematics, mechanical arts, astronomy, experimental philosophy, chemistry, natural history, botany, anatomy and animal history, medicine and surgery, animal economy, and the veterinary science.

The *second class* has morality and politics for its department, and consists of six sections, viz. analysis of sensations and ideas, morals, legislature, political economy, history, and geography.

The *third class* presides over literature and the fine arts, consisting of eight sections, viz. universal grammar, ancient languages, poetry, antiquities, painting, sculpture, architecture, and music.—Several volumes of memoirs have been published by each of the classes.

The hall in which the whole classes hold their meetings four times a-year, forms part of the west wing of the old Louvre, which was erected about the year 1528. It measures 144 feet by 40, and is capable of accommodating upwards of 1000 persons.

The schools of national instruction may be considered as forming a part of the same institution. These are, 1. The primary schools, one of which is established in every district, where children are taught the arts of reading and writing, the elements of French grammar, of arithmetic and geometry, &c. 2. The central schools, situated in the capital of every department, and one is allowed for every 300,000 inhabitants. 3. The schools of health, which are three in number, where medicine and surgery are studied. 4. Two schools for oriental languages. 5. The polytechnic school in Paris for the direction of public works, an establishment which is generally admired. 6. The national institute, of which we have already given some account.

Institute Insular.

The Institute was new modelled by Bonaparte in 1806, and again on the return of the Bourbons. By a decree of 21st March 1816, it was ordered that the Institute should be composed of four academies, viz. the French academy, the Royal Academy of Inscriptions and Belles Lettres, the Royal Academy of Sciences, and the Royal Academy of Fine Arts. Some alterations were at the same time made in the number of members, and in other particulars.

By means of a permanent committee of instruction, under the authority of government, many improvements of a literary and scientific nature have been made, such as the National Bibliography, or complete catalogue of books of all descriptions; the annihilation of all dialects, which were incredibly numerous in France; the establishment of the *Conservatoire des Arts et Métiers;* of the board of longitude, the general school of the oriental languages, the national museum of antiquities, the new-modelling of the grand national library, the augmentation of the museum of natural history, the *ecole des mines*, and the society of natural history.

INSTITUTION, in general, signifies the establishing or founding something.—In the canon and common law, it signifies the investing a clerk with the spiritualities of a rectory, &c. which is done by the bishop, who uses the following formula: "I institute you rector of such a church with the cure of souls, and receive your care and mine."

INSTITUTIONS, in literary matters, denote a system of the elements or rules of any art or science.

Thus physical or medical institutions are such as teach the necessary præcognita to the practice of medicine, or the cure of diseases.

INSTRUMENT, in general, whatever is subservient to a cause in producing any effect.

Mathematical, Philosophical, &c. *Instruments.* See ASTRONOMY, ELECTRICITY, GEOMETRY, LEVELLING, MECHANICS, OPTICS, PNEUMATICS, &c. &c.

INSTRUMENT, is also used in law, to signify some public act, or authentic deed, by means whereof any truth is made apparent, or any right or title established, in a court of justice.

Notorial Instrument, in *Scots Law*, any fact certified in writing, under the hand of a notary-public.

INSUBRIUM AGER, in *Ancient Geography*, a district of the Transpadana; situated between the Ticinus to the west, the Addua to the east, the Padus to the south, and the Orobii to the north. The people called *Insubres* by Livy, *Insubri* by Ptolemy, and *Isombres* by Strabo. Now the duchy of Milan.

INSULAR, any thing belonging to an island.—Insular situations are productive of many happy consequences to the inhabitants, both with respect to the climate,

Insular & Insurance.

mate, security, and convenience for commerce; for a particular account of which, see ISLAND and COAST.

INSULATED, in *Architecture*, an appellation given to such columns as stand alone, or free from any contiguous wall, like an island in the sea; whence the name.

INSULATED, in electrical experiments. When any body is prevented from communicating with the earth by the interposition of an electric body, it is said to be *insulated*. See ELECTRICITY *Index*.

INSURANCE, in *Law* and *Commerce*, a contract, whereby one party engages to pay the losses which the other may sustain, for a stipulated premium or consideration. The most common sorts are, insurance against the dangers of the seas, insurance against fire, insurance of debts, and insurance of lives.

According to Beckmann, the oldest laws and regulations respecting insurance, are the following.

On the 28th of January 1523, five persons who had received an appointment for that purpose, drew up some articles at Florence, which continue to be employed on the exchange at Leghorn. These interesting regulations, and the prescribed form of policies, which are deemed the oldest, were inserted by Magens, in his treatise on insurance, published at Hamburgh in Italian and German, in the year 1753.

A short regulation of the 25th May 1537, by the emperor Charles V. respecting bills of exchange and insurance, is still preserved, in which even the fulfilling of an agreement is strictly commanded.

In the year 1556, Philip II. of Spain gave the Spanish merchants certain regulations respecting insurance, which Magens has inserted in the fore-mentioned work. They contain some forms of policies on ships going to the Indies.

The chamber of insurance was established at Amsterdam in 1598, an account of the first regulations of which office was published by Pontanus, in his history of that city.

Regulations respecting insurance were formed by the city of Middleburg in Zealand, in the year 1600; and it appears that the first regulations respecting insurances in England, were made in the following year. We find from them, that insurers, prior to this period, had secured the confidence of the public so completely, by the honesty and rectitude of their conduct, that few occasions for disputes had arisen *.

* *Hist. of Invent.* vol. i. 382.

I. *INSURANCE against Loss at Sea*, is a most beneficial institution, for promoting the security of trade, and preventing the ruin of individuals; and is now conducted by a regular system of rules, established by the interposition of the legislature, the decision of the courts of justice, and the practice of merchants.

It is carried on to the best advantage by public companies, or by a considerable number of private persons, each of whom only engages for a small sum, on the same vessel. There are two public companies established by authority of parliament, viz. the London and Royal Exchange Insurance Companies. For procuring subscription by private persons, brokers are generally employed, who extend the policy or contract of insurance, and assist at settling losses. They are entitled to an allowance for their trouble, generally 5 per cent. on premiums, and 2 per cent. on losses.

Insurance

The parties who engage to pay the damage are called the *insurers* or *underwriters*: the parties for whose security they engage are called the *insured*; and the premium is understood to be paid when the insurance is made.

On this subject, we shall consider, What is necessary to render an insurance valid:—When the risk commences, and when it terminates:—What constitutes a total or a partial loss:—What proof of loss is necessary:—and, How the loss is adjusted.

First, In order to render an insurance valid, the insured must have property really at stake; the voyage must take place under the circumstances agreed on; the dangers insured against must not be contrary to law, and a candid account must be given of circumstances which enhance the danger.

1. The condition of possessing property was required by 19 Geo. II. c. 37. to prevent ships from being fraudulently destroyed when insured above their value; and to discourage a practice which had become common, of converting policies to the purpose of mere wagors. In transactions of this kind, as the insured had no property, and could claim no indemnification for partial damage; so the insurers, having lost their wager by the ship's being lost, could claim no abatement, though part was saved: accordingly, the policies contained clauses of interest or no interest, free from average, and without benefit of salvage. All such policies are declared invalid.

This restriction does not extend to privateers, nor to ships trading to the Spanish or Portuguese plantations.

Insurances are commonly made as interest shall appear; and it is incumbent on the insured to prove the value of his property. The value of the goods may be proved by the invoices; and the coquet must be produced, if required, to instruct that the goods were actually shipped. It is admitted to value the ship at prime cost and charges, deducting the freights that have been drawn since purchased, if the proprietors choose to stand to that rule; but they are not restricted to it. Sometimes the value of the ship or goods is expressed in the policy; and this value must be admitted, although it be higher than the true one: but it is incumbent on the insured to prove that he had property at stake; and, if the property be trifling in comparison of the sum insured, the insurance will be set aside, as an evasion of the statute.

Expected profits, and bounty on the whale fishery, if specified in the policy, may be insured.

When the value is less than the sum insured, the owners may claim a return of premium for the excess.

If there be several policies on the same subject, of different dates, the earliest one is valid, and the others must be vacated. If they be of the same date, they must be vacated in equal proportions.

When a policy is vacated, in whole or in part, the underwriters have a right to retain $\frac{1}{2}$ per cent. for their trouble.

In the case of a cargo intended for A, but afterwards sent to B, both expected it, and insured, and B claimed for the value on its being lost. The underwriters answered, that it was a double insurance, and they ought only to pay their proportion. Judgment

was

Insurance. was given, finding them liable for the whole, and reserving to them any demand competent against the underwriters who insured for A.

Fraudulently to cast away or destroy a ship insured above its value, is felony.

2. If the ship does not proceed on the voyage, or if, being warranted to depart with convoy, it departs without convoy, the insurance must be vacated.

If the extent of a trading voyage be uncertain, the longest one in contemplation is described in the policy, and it is agreed that part of the premium shall be returned, if the voyage be shortened. In like manner, in time of war, when insurance is made without condition of convoy, it is agreed that part of the premium be returned in case it sail with convoy.

When a ship is warranted to depart with convoy, it is understood from the usual place of convoy (e. g. the Downs), and it is insured till it arrive there.

The common proof of sailing with convoy is the production of sailing orders; but, if a ship be prevented by the weather from receiving the sailing orders, other proof may be admitted.

A ship was insured from the Thames to Halifax, warranted to sail from Portsmouth with convoy. The convoy had sailed before the ship arrived there, and the underwriters declined to insure it, without convoy, for the rest of the voyage. They were found liable to return part of the premium, retaining only in proportion to the accustomed rate from London to Portsmouth. This decision seems to establish the following principle, that, when the voyage performed is only part of that described in the policy, and when the risk can be proportioned, the underwriters are bound to return part of the premium, though there be no agreement for that purpose.

But, if a ship, insured only against the hazards of the sea, be taken by the enemy, the insured have no right to claim a return of premium, though the capture happen soon, under pretence that little sea-hazard was incurred.

If a ship deviates from the voyage described in the policy, without necessity, it sets aside the insurance. An intention to deviate is not sufficient to set it aside; there must be an actual deviation; and, even in that case, the insurers are liable for damages sustained before deviation.

It is no deviation to go out of the way to the accustomed place of convoy, nor to the nearest place where necessary repairs may be had. Deviation, for the purpose of smuggling, if without the knowledge of the owners, does not set aside the insurance, nor when the master is forced by the crew to return.

In insurance to the East Indies, and home, the insurers are understood to take the risk of detention in the country, and of country voyages.

3. Insurance of prohibited goods, against the risk of seizure by the government, is unlawful and invalid. The insurers, insured, brokers, and all accessories, are liable to the fine of 500l.

4. If the insured have any information of more than common danger, they must reveal every such circumstance to the insurers, otherwise the policy is set aside.

This rule is established for the preservation of good faith; and there are several strong decisions in support of it. If a ship be spoke to leaky at sea, or if there be a report of its being lost, these circumstances must be communicated to the insurers. Even the concealment of a false report of loss vitiates the insurance; and, if the ship be afterwards lost, though in a different manner, the insurer will recover nothing. In a voyage from Carolina to London, another ship had sailed ten days after that which was insured, and arrived seven days before the insurance was made; and the concealment of this circumstance, though the fact was not proved to the satisfaction of the jury, was considered as sufficient to set it aside. Also, during the continuance of the American war, a ship being insured from Portugal, by the month, without condescending on the voyage, sailed for North America, and was taken by a provincial privateer. The insurers refused to pay, because the hazardous destination was concealed; and it was only upon proof of the insured being equally ignorant of it that they were found liable.

Insurance.

But the insured are not obliged to take notice of general perils, which the insurers are understood to have in contemplation; dangerous navigation, West Indian hurricanes, enterprises of the enemy, and the like.

Insurance is not set aside by a mistake in the name of the ship or master, or the like.

Insurance may be made on an uncertain ship; on any ship that the goods may be loaded on; on any ship that A shall sail in from Virginia. In this last case, the policy is not transferred to a ship which A goes on board during the voyage.

Secondly, If a ship be insured at and from a port, the insurance commences immediately if the ship be there, or at its arrival there. If it be damaged when preparing for a voyage, the insurers are liable; but not if the voyage be laid aside for several years, with consent of the owners. Insurance from a port commences when the ship breaks ground; and, if it set sail, and be driven back and lost in the port, the insurers are liable.

Insurance on goods generally continues till they be landed; but if they be sold after the ship's arrival, and freight contracted to another port, the insurance is concluded. Goods sent on board another ship or lighter are not at the risk of the insurer; but goods sent ashore in the long boat are.

Insurance on freight commences when the goods are put on board.

Goods from the East Indies, insured to Gibraltar, and to be reshipped from thence to Britain, were put on board a store-ship at Gibraltar, to wait an opportunity of reshipping, and were lost: The custom of putting goods aboard a store-ship being proved, the insurers were found liable.

Loss of sails ashore, when the ship is repairing, is comprehended within the insurance. What is necessarily understood, is insured, as well as what is expressed; the essential means, and intermediate steps, as well as the end. Ships performing quarantine are at the risk of the insurer.

Thirdly, The insurers are liable for a total loss when the subject perishes through any of the perils insured against. Barratry, though it properly signifies running away with the ship, extends to any kind of fraud in the

Insurance. the master or mariners. Insurance against detention of princes does not extend to ships that are seized for transgressing the laws of foreign countries.

The insurers are also liable for a total loss, when damage is sustained, and the remaining property abandoned or vested in the insurers.

If a ship be stranded, or taken, and kept by the enemy, or detained by any foreign power, or seized for the service of the government, the proprietors have a right to abandon.

But, if a ship be taken by the enemy, and be retaken, or makes its escape, before action against the insurers; have the insured a right to abandon, or must they only claim for the damages sustained as an average loss? There are opposite decisions, according as the circumstances of the case were strong. When the ship was long detained, the goods perishable, the voyage entirely lost, or so disturbed, that the pursuit of it was not worth the freight, or when the damage exceeds half the value of the thing, they have been found entitled to abandon; Goss against Withers, 2 Burrow, 683.). But, if the voyage be completed with little trouble or delay, they are not entitled; (Hamilton against Mendez, 2 Burrow, 1198.).

The insured cannot claim, as for a total loss, on an offer to abandon, when the loss is, in its nature, only partial; for, if this were permitted, they might devolve the loss occasioned by bad markets on the insurers.

And, in all cases, the insured have their option to abandon, or not. They may retain their property if they please, and claim for an average loss; and they must make their option before they claim.

If the goods be so much damaged, that their value is less than the freight, the insurers are accountable as for a total loss.

The insurers are liable for general average, when the property is charged with contribution; and for particular average, when the property is damaged, or part of it destroyed.

If the damage be sustained through the fault of the ship, the owners of the goods may have recourse, either against the masters or insurers; and, if the insurers be charged, they stand in the place of the owners, and have recourse against the master.

In order to prevent the insurers from being troubled with frivolous demands for average, it is generally stipulated, that none shall be charged under 5 per cent. or some other determined rate; and corn, flax, fruit, fish, and like perishable goods, are warranted free from average, unless general, or the ship be stranded.

In order to encourage every effort to save the ship, the insurers are liable for charges laid out with that design, although the subject perish. Thus, they may be charged with more than the sum insured.

In case of goods being damaged, the proportion of the sum insured, for which the underwriters are liable, is regulated by the proportion of the prices which the sound and damaged goods fetch at the port of destination. The prime cost of the goods is not considered, nor the necessity of immediate sale, in consequence of damage. Although the damaged goods sell above prime cost, the insurers are liable.

Fourthly, If a ship be lost, and the crew saved, the loss is proved by the evidence of the crew.

If damage be sustained, the extent is proved by an examination of the subject damaged, at the ship's arrival; and the cause by the evidence of the crew. Insurance

If the ship be stranded, evidence must be taken at the place where stranded.

Documents of loss must be laid before the underwriters, with all convenient speed; and, if these be sufficiently clear, the loss should be immediately settled. The underwriters generally grant their notes at a month or six weeks date for their proportions.

If a ship be not heard of for a certain time, it is presumed lost; and the underwriters are liable to pay the sums insured, the property being abandoned to them in the event of the ship's return. Six months are allowed for a voyage to any part of Europe, a year to America, and two years to the East Indies.

By the ordinance of Hamburgh, if a ship be three months beyond the usual time of performing a voyage, the underwriters may be desired to pay 92 per cent. on an abandon. If they decline it, they are allowed 14 months more, and then they must pay the full value.

A ship insured against the hazards of the sea, but not against the enemy, if never heard of, is presumed lost at sea.

Fifthly, In order that the manner of settling losses may be understood, we must explain what is meant by covering property. We mentioned already, that insurances for greater sums than the insured had really at stake, were contrary to law: but some latitude is allowed in that respect; for if the owner were to insure no more than the exact value of his property, he would lose the premium of insurance, and the abatement, if any was agreed on.

For example, if he has goods on board to the value of 100l. and insures the same at 5 per cent. to abate 2 per cent. in case of loss; then, if a total loss happen, he recovers 98l. from the insurers, of which 5l. being applied to re-place the premium, the nett sum saved is only 93l.; but, if the value on board be only 93l. and the sum insured 100l. he would be fully indemnified for the loss; and his property, in that case, is said to be covered.

To find how much should be insured to cover any sum, subtract the amount of the premium and abatement (if any) from 100l. As the remainder is to 100l. so is the value to the sum which covers it.

In case of a total loss, if the sum insured be not greater than that which covers the property, the insurers must pay it all. If greater, they pay what covers the property, and return the premium on the overplus.

Partial losses are regulated by this principle, that whereas the owner is not fully indemnified, in case of a total loss, unless he covers his property, therefore he should only be indemnified for a partial loss in the same proportion; and, if it be not fully insured, he is considered as insurer himself, for the part not covered, and must bear a suitable proportion of the loss. Therefore the value of the property is proved, and the sum required to cover it computed. If that sum be all insured, the underwriters pay the whole damage; if only part be insured, they pay their share, which is computed by the following rule: As the sum which covers the property is to the sum insured, so is the whole damage to the

Insurance. the part for which the insurers are liable.—For example, if the value of the property be 360l. the sum insured 300l. the premium 8 per cent. and abatement 2 per cent. then the sum which should be insured to cover the property is 400l.; and, if damage be sustained to the extent of 200l. the owners will recover 150l.

If a voyage is insured out and home, the premium outward must be considered as part of the value on the homeward property, and the sum necessary to cover it computed accordingly. For example, to insure 100l. out and home, at 5 per cent. each voyage, abatement 2 per cent. we compute thus:

93 : 100 :: L. 100 : L. 107 : 10 : 6, to be insured outward, premium on L. 107 : 10 : 6 outwards, at 5 per cent. L. 5 : 7 : 6 : 93 : 100 :: L. 105 : 7 : 6 : L. 113 : 6s. to be insured home; the premium on which is L. 5 : 13 : 6; and, if the ship be lost on the homeward voyage,

From the sum insured home		L. 113	6 0
Subtract the discount, 2 per cent.		2	5 3
Sum for which the insurers are liable		L. 111	— 9
Insurance out	L. 5 7 6		
Insurance home	5 13 3		
		11	— 9
Covered property		L. 100	— —

II. *Insurance against Fire.* There are several offices in Britain for this purpose, of which the Sun fire-office is the most considerable. Insurances are divided into common, hazardous, and doubly hazardous, according to the nature of the subject insured. When the sum insured is high, there is a higher premium per cent. demanded; and money, papers, jewels, pictures, and gun-powder, are not comprehended. If a subject be wrong described, in order that it may be insured at a lower pemium, the policy is void. The benefit of a policy is transferred, by indorsement, to the representatives of the person in whose favour it was made; and it may be transferred to other houses when the insured changes his habitation. If insurance be made on the same subject in different offices, it must be specified, by indorsement, on the policy; and, in case of less, the offices pay proportionally. The insurers pay all expences in attempting to extinguish fire, or to save goods, though not successful. If the value of a subject be insured in part, and damage be sustained, the insurers pay the whole, if it does not exceed the sum insured.

III. *Insurance of Debts.* See Bottomry.

IV. In virtue of *Insurance for Lives*, when the person dies, a sum of money becomes payable to the person on whose behalf the policy of insurance was granted. One of the principal insurance-offices of this kind is that of the Amicable Society for a perpetual insurance, kept in Serjeant's-inn, Fleet street, London.

This society at Serjeant's-inn requires an annual payment of 5l. from every member during life, payable quarterly. The whole annual income hence arising is equally divided among the nominees, or heirs, of such members as die every year; and this renders the dividends among the nominees in different years, more or less, according to the number of members who have happened to die in those years. But this society engages that the dividends shall not be less than 150l. to each claimant, though they may be more.— None are admitted whose ages are greater than 45, or less than 12; nor is there any difference of contribution allowed on account of difference of age.—This society has subsisted ever since 1706, and its credit and usefulness are well established. Its plan, however, is liable to several objections. First, it is evident, that regulating the dividends among the nominees, by the number of members who die every year, is not equitable; because it makes the benefit which a member is to receive to depend, not on the value of his contribution, but on a contingency; that is, the number of members that shall happen to die the same year with him. Secondly, its requiring the same payments from all persons under 45, is also not equitable; for the payment of a person admitted at 12 ought not to be more than half the payment of a person admitted at 45. Thirdly, its plan is so narrow, as to confine its usefulness too much. It can be of no service to any person whose age exceeds 45. It is likewise by no means properly adapted to the circumstances of persons who want to make assurances on their lives for only one year, or a short term of years. For example: the true value of the assurance of 150l. for five years, on the life of a person whose age is 39, may be found, by the first rule, to be nearly three guineas per annum, supposing interest at 3 per cent. and the probabilities of the duration of human life, as they are given in Dr Halley's Table of Observations. But such an assurance could not be made in this society without an annual payment of 5l. Neither is the plan of this society at all adapted to the circumstances of persons who want to make assurances on particular survivorships. For example: a person possessed of an estate or salary, which must be lost with his life, has a person dependent upon him, for whom he desires to secure a sum of money payable at his death. But he desires this only as a security against the danger of his dying first, and leaving a wife, or a parent, without support. In these circumstances he enters himself into this society; and, by an annual payment of 5l. entitles his nominee at his death to 150l. In a few years, perhaps, his nominee happens to die; and having then lost the advantages he had in view, he determines to forfeit his former payments, and to withdraw from the society. The right method, in this case, would have been to have taken from such a person the true value of the sum assured, "on the supposition of non-payment, provided he should survive." In this way he would have chosen to contract with the society: and had he done this, he would have paid for the assurance (supposing interest at 3 per cent. his age 30, the age of his nominee 30, and the values of lives as given by M. de Moivre) 3l. 8s. in annual payments, to begin immediately, and to be continued during the joint duration of his own life, and the life of his nominee.

The Equitable Society for Assurances on Lives and Survivorships, which meets at Blackfriars Bridge, is one of the most important of the kind. It was established in the year 1762, in consequence of proposals made, and lectures recommending the design, which had been read by Mr Dodson, author of the Mathematical Repository. It assures any sums, or reversionary annuities, on any life or lives, for any number of years, as well as for the whole continuance of the lives; and

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in any manner that may be best adapted to the views of the persons assured. For instance, any persons who depend on incomes which must be lost when they die, or who are only tenants for life in estates, may, if they want to borrow money, be enabled to give sufficient security, by assuring such sums as they want to borrow, and assigning the policy. In the same way clergymen, and others who hold places of profit, having families whose subsistence depends on the continuance of their lives; such as enjoy annuities for the lives of others; any person entitled to an estate, legacy, &c. after another person, provided he survives; husbands may provide annuities for their wives, if they leave them widows; parents may, by assuring the lives of their children, when infants, till they attain a given age, secure for them, should they live till that age, sums necessary for apprenticeships, &c.; persons apprehensive of being left without support in old age, may here purchase annuities, if willing to wait for the commencement of the payment of these till they are 55 or 60 years of age.

In fine, there are no kinds of assurances on lives and survivorships, which this society does not make, following the rules given by the best mathematical writers on life annuities, particularly Mr Simson's. In order to gain such a profit as may render it a permanent benefit to the public, and enable it to bear the expences of management, it takes the advantage of making its calculations at so low an interest as 3 per cent. and from tables of the probabilities and values of lives in London, where, as in all great towns, the rate of human mortality is much greater than it is in common among mankind.

This society, finding in the month of June 1777, that their affairs were in a flourishing condition, came to a resolution to reduce their annual premiums one-tenth; and they adopted new tables in the year 1782, founded on the probabilities of life at Northampton, instead of those which were framed from the London bills of mortality. It was afterwards thought proper to make an addition, for greater security, of 15 per cent. to the true value of the assurances, as calculated from the table of mortality at Northampton. To make a suitable recompense to the assured for the payments they had formerly made, which had been greater than the new rates required, an addition of 1l. 10s. was made to their claims for every premium they had paid. The result of this measure was, that in 1785 the business of the society was nearly doubled, the sums assured amounting to 720,000l. In consequence of a minute investigation, the society took off the 15 per cent. charged on premiums in 1782, and added 1l. per cent. more to the assurer's claims, for every payment made before the 1st of January 1786. Business still increasing, they made another addition of 1l. per cent. in 1791; and in the subsequent year a farther addition of 2l. per cent. by which the claims of such as assured in 1770 came to be more than doubled, and those of a prior date were still higher. By such integrity and consequent increase of business, the sums assured amounted, on the 31st of December 1792, to the astonishing sum of three millions sterling; and exactly three years after, they amounted to about one million more.

The rates of assurance, as reduced to their real values in 1786, according to which all business is now transacted, are the following.

Sum assured 100l.

Age.	*One year.*			*Seven years.*			*Whole life.*		
	L.	s.	d.	L.	s.	d.	L.	s.	d.
15	0	17	11	1	2	11	1	18	7
20	1	7	3	1	9	5	2	3	7
25	1	10	7	1	12	1	2	8	1
30	1	13	3	1	14	11	2	13	4
35	1	16	4	1	18	10	2	19	10
40	2	0	8	2	4	1	3	7	11
45	2	6	8	2	10	10	3	17	11
50	2	15	1	3	0	8	4	10	10
55	3	5	0	3	12	0	5	6	4
60	3	18	1	4	7	1	6	7	4
65	4	15	2	5	10	10	7	16	9

The other offices in London for the assurances of lives are,

The Royal Exchange Assurance, which was empowered to assure lives by virtue of its second charter, bearing date the 29th of April 1721; the Westminster Society was established in 1792, for assuring lives and annuities; and the Pelican Life Office was instituted in 1797, which makes a new species of assurance, by way of endowment for daughters, when they have attained the age of 21 years.

Re-Insurance is a second contract, made by any insurer, to transfer the risk he has engaged for to another. It is in general forbidden by 19 Geo. II. c. 37. but is permitted to the representatives of an insurer in case of his death, or his assignees in case of his bankruptcy; and it must be mentioned in the policy that it is a re-insurance.

INTAGLIOS, precious stones, on which are engraved the heads of great men, inscriptions, and the like; such as we frequently see set in rings, seals, &c.

INTEGER, in *Arithmetic*, a whole number, in contradistinction to a fraction.

INTEGRAL, or INTEGRANT, in *Philosophy*, appellations given to parts of bodies which are of a similar nature with the whole: thus filings of iron have the same nature and properties as bars of iron.

Bodies may be reduced into their integrant parts by triture or grinding, limation or filing, solution, amalgamation, &c. See GRINDING.

Integral Calculus, in the new analysis, is the reverse of the differential calculus, and is the finding of the integral from a given differential; being similar to the inverse method of fluxions. See FLUXIONS.

INTEGUMENTS, in *Anatomy*, denote the common coverings which invest the body; as the cuticula, cutis, &c. See ANATOMY.

INTEGUMENT is also extended to the particular membranes which invest certain parts of the body; as the coats or tunics of the eye.

INTELLECT, a term used among philosophers, to signify that faculty of the soul usually called the *understanding*. See LOGIC and METAPHYSICS.

INTENDANT, one who has the conduct, inspection, and management of any thing. See SUPERINTENDANT.

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Intendant.

This is a title frequent among the French: they have *intendants of the marine*, who are officers in the sea-ports,

Intendant ‖ Intercession.

ports, whose business it is to take care the ordinances and regulations relating to sea affairs be observed: *intendants of the finances*, who have the direction of the revenues: *intendants of provinces*, who are appointed by the king to take care of the administration of justice, policy, and finances in the province: also *intendants of buildings*, *of houses*, &c.

INTENDMENT, in *Law*, is the intention, design, or true meaning, of a person or thing, which frequently supplies what is not fully expressed; but though the intent of parties in deeds and contracts is much regarded by the law, yet it cannot take place against the rules of law.

Intendment of Crimes; this, in case of treason where the intention is proved by circumstances, is punishable in the same manner as if it was put in execution. So, if a person enter a house in the night-time, with an intent to commit burglary, it is felony; also, an assault, with an intent to commit a robbery on the highway is made felony, and punished with transportation, 7 Geo. II. c. 21.

INTENT, in the civil law, signifies to begin, or commence, an action or process.

INTENTION, in *Medicine*, that judgment or method of cure which a physician forms to himself from a due examination of symptoms.

Intention, in *Physics*, the increase of the power or energy of any quality; as heat, cold, &c. by which it stands opposed to *remission*, which signifies its decrease or diminution.

Intention, in *Metaphysics*, denotes an exertion of the intellectual faculties with more than ordinary vigour; when the mind with earnestness fixes its view on any idea, considers it on all sides, and will not be called off by any solicitation.

INTERAMNA, in *Ancient Geography*, so called from its situation between rivers, or in an island in the river Nar; a town of the Cisapennine Umbria. *Interamnates* the people; surnamed *Nartes* by Pliny, to distinguish them from the people of other Interamnæ. Now *Terni*: a town in the pope's territory in Umbria. E. Long. 13. 38. N. Lat. 42. 40.

Interamna, a town and colony of the Volsci in Latium, on the confines of Samnium, at the confluence of the rivers Liris and Melpis; and for distinction sake called *Lirinas*. The town is now in ruins.

Interamna, or *Interamnia Prætutianorum* (Ptolemy); a town in the territory of the Prætutiani, a part of the Picenum. Now *Teramo*, in the Abruzzo of Naples. E. Long. 15. N. Lat. 42. 40.

INTERCALARY, an appellation given to the odd day inserted in leap-year; which was so called from *calo*, *calare*, "to proclaim," it being proclaimed by the priests with a loud voice.

INTERCATIA, in *Ancient Geography*, a town of the Vaccæi in the Hither Spain. Here Scipio Æmilianus slew a champion of the barbarians in single combat; and was the first who mounted the wall in taking the town. It was situated to the south-east of Asturia; now said to be in ruins.

INTERCESSION (*intercessio*), was used in ancient Rome, for the act of a tribune of the people, or other magistrate, by which he inhibited the acts of other magistrates; or even, in case of the tribunes, the decrees of the senate. *Veto* was the solemn word used by the tribunes when they inhibited any decree of the senate or law proposed to the people. The general law of these intercessions was, that any magistrate might inhibit the acts of his equal or inferior; but the tribunes had the sole prerogative of controlling the acts of every other magistrate, yet could not be controlled themselves by any.

Intercession ‖ Interest.

INTERCESSOR (from *inter* and *cedo*, "I go between"), a person who prays, expostulates, or intercedes, in behalf of another. In the Roman law, intercessor was the name of an officer, whom the governors of provinces appointed principally to raise taxes and other duties.

Intercessor, is also a term heretofore applied to such bishops as, during the vacancy of a see, administered the bishoprick, till a successor to the deceased bishop had been elected. The third council of Carthage calls these *interventors*.

INTERCOLUMNIATION, in *Architecture*, denotes the space between two columns, which is always to be proportioned to the height and bulk of the columns.

INTERCOSTAL, in *Anatomy*, an appellation given to such muscles, nerves, arteries, and veins, as lie between the ribs.

INTERDICT, an ecclesiastical censure, by which the church of Rome forbids the performance of divine service in a kingdom, province, town, &c. This censure has been frequently executed in France, Italy, and Germany; and in the year 1170, Pope Alexander III. put all England under an interdict, forbidding the clergy to perform any part of divine service, except baptising of infants, taking confessions, and giving absolution to dying penitents. But this censure being liable to the ill consequences of promoting libertinism and a neglect of religion, the succeeding popes have very seldom made use of it.

There was also an interdict of persons, who were deprived of the benefit of attending on divine service. Particular persons were also anciently interdicted of fire and water, which signified a banishment for some particular offence; by their censure no person was allowed to receive them, or allow them fire or water; and being thus wholly deprived of the two necessary elements of life, they were doubtless under a kind of civil death.

INTEREST, is the premium or money paid for the loan or use of other money.

Many good and learned men have in former times very much perplexed themselves and other people by raising doubts about the legality of interest in *foro conscientiæ*. It may not be amiss here to inquire upon what grounds this matter does really stand.

The enemies to interest in general make no distinction between that and usury, holding any increase of money to be indefensibly usurious. And this they ground as well on the prohibition of it by the law of Moses among the Jews, as also upon what is laid down by Aristotle, That money is naturally barren; and to make it breed money is preposterous, and a perversion of the end of its institution, which was only to serve the purposes of exchange, and not of increase. Hence the school-divines have branded the practice of taking interest, as being contrary to the divine law both natural and revealed; and the canon law has proscribed

Interest. the taking any the least increase for the loan of money as a mortal sin.

But, in answer to this, it may be observed, that the Mosaical precept was clearly a political, and not a moral, precept. It only prohibited the Jews from taking usury from their brethren the Jews; but in express words permitted them to take it of a stranger: which proves that the taking of moderate usury, or a reward for the use, for so the word signifies, is not *malum in se*, since it was allowed where any but an Israelite was concerned. And as to Aristotle's reason, deduced from the natural barrenness of money, the same may with equal force be alleged of houses, which never breed houses; and twenty other things, which nobody doubts it is lawful to make profit of, by letting them to hire. And though money was originally used only for the purposes of exchange, yet the laws of any state may be well justified in permitting it to be turned to the purposes of profit, if the convenience of society (the great end for which money was invented) shall require it. And that the allowance of moderate interest tends greatly to the benefit of the public, especially in a trading country, will appear from that generally acknowledged principle, that commerce cannot subsist without mutual and extensive credit. Unless money therefore can be borrowed, trade cannot be carried on: and if no premium were allowed for the hire of money, few persons would care to lend it; or at least the ease of borrowing at a short warning (which is the life of commerce) would be entirely at an end. Thus, in the dark ages of monkish superstition and civil tyranny, when interest was laid under a total interdict, commerce was also at its lowest ebb, and fell entirely into the hands of the Jews and Lombards: but when men's minds began to be more enlarged, when true religion and real liberty revived, commerce grew again into credit; and again introduced with itself its inseparable companion, the doctrine of loans upon interest.

And, really, considered abstractedly from this its use, since all other conveniences of life may be either bought or hired, but money can only be hired, there seems no greater impropriety in taking a recompense or price for the hire of this, than of any other convenience. If one borrow 100l. to employ in a beneficial trade, it is but equitable that the lender should have a proportion of the gains. To demand an exorbitant price is equally contrary to conscience, for the loan of a horse, or the loan of a sum of money: but a reasonable equivalent for the temporary inconvenience which the owner may feel by the want of it, and for the hazard of his losing it entirely, is not more immoral in one case than it is in the other. And indeed the absolute prohibition of lending upon any, even moderate interest, introduces the very inconvenience which it seems meant to remedy. The necessity of individuals will make borrowing unavoidable. Without some profit by law, there will be but few lenders: and those principally bad men, who will break through the law, and take a profit; and then will endeavour to indemnify themselves from the danger of the penalty, by making that profit exorbitant. Thus, while all degrees of profit were discountenanced, we find more complaints of usury, and more flagrant instances of oppression, than in modern times when money may be easily had at a low interest. A capital distinction must therefore be made between a moderate and exorbitant profit; to the former of which we usually give the name of *interest*, to the latter the truly odious appellation of *usury:* the former is necessary in every civil state; if it were but to exclude the latter, which ought never to be tolerated in any well regulated society.—For, as the whole of this matter is well summed up by Grotius, "if the compensation allowed by law does not exceed the proportion of the hazard run, or the want felt, by the loan, its allowance is neither repugnant to the revealed nor to the natural law: but if it exceeds those bounds, it is then oppressive usury; and though the municipal laws may give it impunity, they never can make it just." Interest.

We see, that the exorbitance or moderation of interest, for the money lent, depends upon two circumstances; the inconvenience of parting with it for the present, and the hazard of losing it entirely. The inconvenience to individual lenders can never be estimated by laws; the rate therefore of general interest must depend upon the usual or general inconvenience. This results entirely from the quantity of specie or current money in the kingdom: for, the more specie there is circulating in any nation, the greater superfluity there will be, beyond what is necessary to carry on the business of exchange and the common concerns of life. In every nation, or public community, there is a certain quantity of money thus necessary; which a person well skilled in political arithmetic might perhaps calculate as exactly as a private banker can the demand for running cash in his own shop: all above this necessary quantity may be spared, or lent, without much inconvenience to the respective lenders; and the greater this national superfluity is, the more numerous will be the lenders, and the lower ought the rate of the national interest to be; but where there is not enough, or barely enough, circulating cash to answer the ordinary uses of the public, interest will be proportionably high; for lenders will be but few, as few can submit to the inconvenience of lending.

So also the hazard of an entire loss has its weight in the regulation of interest: hence, the better the security, the lower will the interest be; the rate of interest being generally in a compound *ratio*, formed out of the inconvenience and the hazard. And as, if there were no inconvenience, there should be no interest but what is equivalent to the hazard; so, if there were no hazard, there ought to be no interest, save only what arises from the mere inconvenience of lending. Thus, if the quantity of specie in a nation be such, that the general inconvenience of lending for a year is computed to amount to three per cent. a man that has money by him will perhaps lend it upon good personal security at five per cent. allowing two for the hazard run; he will lend it upon landed security, or mortgage, at four per cent. the hazard being proportionably less; but he will lend it to the state, on the maintenance of which all his property depends, at three per cent. the hazard being none at all.

But sometimes the hazard may be greater than the rate of interest allowed by law will compensate. And this gives rise to the practice, 1. Of bottomry, or *respondentia*. 2. Of policies of insurance. See Bottomry, and Insurance.

Upon

Interest ‖ Interim.

Upon the two principles of inconvenience and hazard, compared together, different nations have at different times established different rates of interest. The Romans at one time allowed *centissimæ*, one per cent. monthly, or twelve per cent. per annum, to be taken for common loans: but Justinian reduced it to *trientes*, or one-third of the *as* or *centissimæ*, that is four per cent.; but allowed higher interest to be taken of merchants, because there the hazard was greater. So too Grotius informs us, that in Holland the rate of interest was then eight per cent. in common loans, but twelve to merchants. Our law establishes one standard for all alike, where the pledge or security itself is not put in jeopardy; lest, under the general pretence of vague and indeterminate hazards, a door should be opened to fraud and usury; leaving specific hazards to be provided against by specific insurances, or by loans upon *respondentia* or bottomry. But as to the rate of legal interest, it has varied and decreased for 200 years past, according as the quantity of specie in the kingdom has increased by accessions of trade, and other circumstances. The statute 37 Hen. VIII. c. 9. confined interest to ten per cent. and so did the statute 13 Eliz. c. 8. But, as through the encouragements given in her reign to commerce, the nation grew more wealthy; so, under her successor, the statute 21 Jac. I. c. 17. reduced it to eight per cent.; as did the statute 12 Car. II. c. 13. to six; and lastly, by the statute 12 Ann. stat. 2. c. 16. it was brought down to five per cent. yearly, which is now the extremity of legal interest that can be taken. But yet, if a contract which carries interest be made in a foreign country, our courts will direct the payment of interest according to the law of that country in which the contract was made. Thus Irish, American, Turkish, and Indian interest, have been allowed in our courts to the amount of even 12 per cent. For the moderation or exorbitance of interest depends upon local circumstances; and the refusal to enforce such contracts would put a stop to all foreign trade. And, by stat. 14 Geo. III. c. 79. all mortgages and other securities upon estates or other property in Ireland or the plantations, bearing interest not exceeding six per cent. shall be legal; though executed in the kingdom of Great Britain: unless the money lent shall be known at the time to exceed the value of the thing in pledge; in which case also, to prevent usurious contracts at home under colour of such foreign securities, the borrower shall forfeit treble the sum so borrowed. See the article INTEREST in the SUPPLEMENT; and for the method of computing interest, see ARITHMETIC, sect. iv. p. 640, and ALGEBRA, sect. xx. p. 658.

INTERJECTION, in *Grammar*, an indeclinable part of speech, signifying some passion or emotion of the mind. See GRAMMAR.

INTERIM, a name given to a formulary, or kind of confession of the articles of faith, obtruded upon the Protestants after Luther's death by the emperor Charles V. when he had defeated their forces; so called because it was only to take place in the *interim* (mean time) till a general council should have decided all points in dispute between the Protestants and Romanists. It retained most of the doctrines and ceremonies of the Romanists, excepting that of marriage, which was allowed to the clergy, and communion to the laity under both kinds. Most of the Protestants rejected it. There were two other interims; one of Leipsic, the other of Franconia.

Interim ‖ Interment.

INTERLOCUTOR, in *Scots Law*, is the decision or judgment of a court before the final decree is passed and extracted.

INTERLOCUTORY DECREE, in *English Law*. In a suit in equity, if any matter of fact be strongly controverted, the fact is usually directed to be tried at the bar of the court of king's bench, or at the assizes, upon a feigned issue. If a question of mere law arises in the course of a cause, it is the practice of the court of chancery to refer it to the opinion of the judges of the court of king's bench, upon a case stated for that purpose. In such cases, interlocutory decrees or orders are made.

INTERLOCUTORY Judgments are such as are given in the middle of a cause, upon some plea, proceeding on default, which is not intermediate, and does not finally determine or complete the suit. But the interlocutory judgments most usually spoken of, are those incomplete judgments, whereby the right of the plaintiff is established, but the *quantum* of damages sustained by him is not ascertained, which is the province of a jury. In such a case a writ of inquiry issues to the sheriff, who summons a jury, inquires of the damages, and returns to the court the inquisition so taken, whereupon the plaintiff's attorney taxes costs, and signs final judgment.

INTERLOCUTORY Order, that which decides not the cause, but only settles some intervening matter relating to the cause. As where an order is made in chancery, for the plaintiff to have an injunction, to quit possession till the hearing of the cause; this order, not being final, is called *interlocutory*.

INTERLOPERS, are properly those who, without due authority, hinder the trade of a company or corporation lawfully established, by dealing in the same way.

INTERLUDE, an entertainment exhibited on the theatre between the acts of a play, to amuse the spectators while the actors take breath and shift their dress, or to give time for changing the scenes and decorations.

In the ancient tragedy, the chorus sung the interludes, to show the intervals between the acts.

Interludes, among us, usually consist of songs, dances, feats of activity, concerts of music, &c.

Aristotle and Horace give it for a rule, that the interludes should consist of songs built on the principal parts of the drama: but since the chorus has been laid down, dancers, buffoons, &c. ordinarily furnish the interludes.

INTERMENT, the act of interring, i. e. burying or laying a deceased person in the ground.

Aristotle asserted, that it was more just to assist the dead than the living. Plato, in his Republic, does not forget amongst other parts of justice, that which concerns the dead. Cicero establishes three kinds of justice; the first respects the gods, the second the manes or dead, and the third men. These principles seem to be drawn from nature; and they appear at least to be necessary for the support of society, since at all times civilized nations have taken care to bury their

Interment. their dead, and to pay their last respects to them. See BURIAL.

We find in history several traces of the respect which the Indians, the Egyptians, and the Syrians entertained for the dead. The Syrians embalmed their bodies with myrrh, aloes, honey, salt, wax, bitumen, and resinous gums; they dried them also with the smoke of the fir and the pine tree. The Egyptians preserved theirs with the resin of the cedar, with aromatic spices, and with salt. These people often kept such mummies, or at least their effigies, in their houses; and at grand entertainments they were introduced, that by reciting the great actions of their ancestors they might be better excited to virtue. See *FUNERAL Rites*.

The Greeks, at first, had probably not the same veneration for the dead as the Egyptians. Empedocles, therefore, in the eighty-fourth Olympiad, restored to life Ponthia, a woman of Agrigentum, who was about to be interred*. But this people, in proportion as they grew civilized, becoming more enlightened, perceived the necessity of establishing laws for the protection of the dead.

* *Diogenes Laertius de Vita et Moribus Philosophorum*, lib. viii.

At Athens the law required that no person should be interred before the third day; and in the greater part of the cities of Greece a funeral did not take place till the sixth or seventh. When a man appeared to have breathed his last, his body was generally washed by his nearest relations, with warm water mixed with wine. They afterwards anointed it with oil; and covered it with a dress commonly made of fine linen, according to the custom of the Egyptians. This dress was white at Messina, Athens, and in the greater part of the cities of Greece, where the dead body was crowned with flowers. At Sparta it was of a purple colour, and the body was surrounded with olive leaves. The body was afterwards laid upon a couch in the entry of the house, where it remained till the time of the funeral. At the magnificent obsequies with which Alexander honoured Hephestion, the body was not burned until the tenth day.

The Romans, in the infancy of their empire, paid as little attention to their dead as the Greeks had done. Acilius Aviola having fallen into a lethargic fit, was supposed to be dead; he was therefore carried to the funeral pile; the fire was lighted up; and though he cried out he was still alive, he perished for want of speedy assistance. The prætor Lamia met with the same fate. Tubero, who had been prætor, was saved from the funeral pile. Asclepiades a physician, who lived in the time of Pompey the Great, about one hundred and twenty years before the Christian era, returning from his country-house, observed near the walls of Rome a grand convoy and a crowd of people, who were in mourning assisting at a funeral, and showing every exterior sign of the deepest grief. Having asked what was the occasion of this concourse, no one made any reply. He therefore approached the pretended dead body; and imagining that he perceived signs of life in it, he ordered the bystanders to take away the flambeaux, to extinguish the fire, and to pull down the funeral pile. A kind of murmur on this arose throughout the whole company. Some said that they ought to believe the physician, while others turned both him and his profession into ridicule. The relations, however, yielded at length to the remonstrances of Asclepiades; they consented to defer the obsequies for a little; and the consequence was, the restoration of the pretended dead person to life. It appears that these examples, and several others of the like nature, induced the Romans to delay funerals longer, and to enact laws to prevent precipitate interments. Interment

At Rome, after allowing a sufficient time for mourning, the nearest relation generally closed the eyes of the deceased; and the body was bathed with warm water, either to render it fitter for being anointed with oil, or to reanimate the principle of life, which might remain suspended without manifesting itself. Proofs were afterwards made, to discover whether the person was really dead, which were often repeated during the time that the body remained exposed; for there were persons appointed to visit the dead, and to prove their situation. On the second day, after the body had been washed a second time, it was anointed with oil and balm. Luxury increased to such a pitch in the choice of foreign perfumes for this purpose, that under the consulship of Licinius Crassus and Julius Cæsar, the senate forbade any perfumes to be used except such as were the production of Italy. On the third day the body was clothed according to its dignity and condition. The robe called the prætexta was put upon magistrates, and a purple robe upon consuls; for conquerors, who had merited triumphal honours, this robe was of gold tissue. For other Romans it was white, and black for the lower classes of the people. These dresses were often prepared at a distance, by the mothers and wives of persons still in life. On the fourth day the body was placed on a couch, and exposed in the vestibule of the house, with the visage turned towards the entrance, and the feet near the door; in this situation it remained till the end of the week. Near the couch were lighted wax-tapers, a small box in which perfumes were burnt, and a vessel full of water for purification, with which those who approached the body besprinkled themselves. An old man, belonging to those who furnished every thing necessary for funerals, sat near the deceased, with some domestics clothed in black. On the eighth day the funeral rites were performed; but to prevent the body from corrupting before that time, salt, wax, the resinous gum of the cedar, myrrh, honey, balm, gypsum, lime, asphaltes or bitumen of Judea, and several other substances, were employed. The body was carried to the pile with the face uncovered, unless wounds or the nature of the disease had rendered it loathsome and disgusting. In such a case a mask was used, made of a kind of plaster; which has given rise to the expression of *funera larvata*, used in some of the ancient authors. This was the last method of concealment which Nero made use of, after having caused Germanicus to be poisoned: for the effect of the poison had become very sensible by livid spots and the blackness of the body; but a shower of rain happening to fall, it washed the plaster entirely away, and thus the horrid crime of fratricide was discovered.

The Turks have, at all times, been accustomed to wash the bodies of their dead before interment; and as their ablutions are complete, and no part of the body escapes the attention of those who assist at such melancholy ceremonies, they can easily perceive whether

Interment. one be really dead or alive, by examining, among other methods of proof, whether the *sphincter ani* has lost its power of contraction. If this muscle remains still contracted, they warm the body, and endeavour to recal it to life; otherwise, after having washed it with water and soap, they wipe it with linen cloths, wash it again with rose-water and aromatic substances, cover it with a rich dress, put upon its head a cap ornamented with flowers, and extend it upon a carpet placed in the vestibule or hall at the entrance of the house.

In the primitive church the dead were washed and then anointed; the body was wrapped up in linen, or clothed in a dress of more or less value according to circumstances, and it was not interred until after being exposed and kept some days in the house. The custom of clothing the dead is preserved in France only for princes and ecclesiastics.

In other countries, more or less care is taken to prevent sudden interments. At Geneva, there are people appointed to inspect all dead bodies. Their duty consists in examining whether the person be really dead, and whether one died naturally or by violence. In the north, as well as at Genoa, it is usual not to bury the dead till three days have expired. In Holland, people carry their precautions much farther, and delay the funerals longer. And in England bodies generally remain unburied three or four days.

Premature INTERMENT. Notwithstanding the customs above recited; still, in many places, and on many occasions in all places, too much precipitation attends this last office; or if not precipitation, a neglect of due precautions in regard to the body. In general, indeed, the most improper treatment that can be imagined is adopted, and many a person made to descend into the grave before he has sighed his last breath. The histories related by Hildanus, by Camerarius, by Horstius, by Macrobius in his Somnium Scipionis, by Plato in his Republic, by Valerius Maximus, and by a great many modern authors, leave us no doubt respecting the dangers of such misconduct or precipitation. It must appear astonishing that the attention of mankind has been after all so little roused by an idea the most terrible that can be conceived on this side of eternity. If nature recoils from the idea of death, with what horror must she start at the thought of death anticipated, precipitated by inattention—a return of life in darkness, distraction, and despair—then death repeated under agonies unspeakable! To revive nailed up in a coffin! The brain can scarce sustain the reflection in our coolest safest moments.

According to present usage, as soon as the semblance of death appears, the chamber of the sick is deserted by friends, relatives, and physicians; and the apparently dead, though frequently living, body, is committed to the management of an ignorant and unfeeling nurse, whose care extends no farther than laying the limbs straight, and securing her accustomed perquisites. The bed-clothes are immediately removed, and the body is exposed to the air. This, when cold, must extinguish any spark of life that may remain, and which, by a different treatment, might have been kindled into a flame; or it may only continue to repress it, and the unhappy person afterwards revive amidst the horrors of the tomb.

The difference between the end of a weak life and the commencement of death, is so small, and the uncertainty of the signs of the latter is so well established both by ancient and modern authors who have turned their attention to that important object, that we can scarcely suppose undertakers capable of distinguishing an apparent from a real death. Animals which sleep during winter show no signs of life; in this case, circulation is only suspended: but were it annihilated, the vital spirit does not so easily lose its action as the other fluids of the body; and the principle of life, which long survives the appearance of death, may re-animate a body in which the action of all the organs seems to be at an end. But how difficult is it to determine whether this principle may not be revived? It has been found impossible to recal to life some animals suffocated by mephitic vapours, though they appeared less affected than others who have revived. Coldness, heaviness of the body, a leaden livid colour, with a yellowness in the visage, are all very uncertain signs: Mr Zimmerman observed them all upon the body of a criminal, who fainted through the dread of that punishment which he had merited. He was shaken, dragged about, and turned in the same manner as dead bodies are, without the least signs of resistance; and yet at the end of 24 hours he was recalled to life by means of volatile alkali. Interment.

A director of the coach-office at Dijon, named *Colinet*, was supposed to be dead, and the news of this event was spread through the whole city. One of his friends, who was desirous of seeing him at the moment when he was about to be buried, having looked at him for a considerable time, thought he perceived some remains of sensibility in the muscles of the face. He therefore made an attempt to bring him to life by spirituous liquors, in which he succeeded; and this director enjoyed afterwards for a long time that life which he owed to his friend. This remarkable circumstance was much like those of Empedocles and Asclepiades. These instances would perhaps be more frequent, were men of skill and abilities called in cases of sudden death, in which people of ordinary knowledge are often deceived by false appearances.

A man may fall into a syncope, and may remain in that condition three or even eight days. People in this situation have been known to come to life when deposited among the dead. A boy belonging to the hospital at Cassel appeared to have breathed his last: he was carried into the hall where the dead were exposed, and was wrapped up in a piece of canvas. Some time after, recovering from his lethargy, he recollected the place in which he had been deposited, and crawling towards the door knocked against it with his foot. This noise was luckily heard by the centinel, who soon perceiving the motion of the canvas called for assistance. The youth was immediately conveyed to a warm bed, and soon perfectly recovered. Had his body been confined by close bandages or ligatures, he would not have been able, in all probability, to make himself be heard: his unavailing efforts would have made him again fall into a syncope, and he would have been thus buried alive.

We must not be astonished that the servants of an hospital should take a syncope for a real death, since even the most enlightened people have fallen into errors

of

Interment.

of the same kind. Dr John Schmid relates, that a young girl, seven years of age, after being afflicted for some weeks with a violent cough, was all of a sudden freed from this troublesome malady, and appeared to be in perfect health. But some days after, while playing with her companions, this child fell down in an instant as if struck by lightning. A death-like paleness was diffused over her face and arms; she had no apparent pulse, her temples were sunk, and she showed no signs of sensation when shaken or pinched. A physician, who was called, and who believed her to be dead, in compliance with the repeated and pressing request of her parents, attempted, though without any hopes, to recal her to life; and at length, after several vain efforts, he made the soles of her feet be smartly rubbed with a brush dipped in strong pickle. At the end of three quarters of an hour she was observed to sigh: she was then made to swallow some spirituous liquor; and she was soon after restored to life, much to the joy of her disconsolate parents.—A certain man having undertaken a journey, in order to see his brother, on his arrival at his house found him dead. This news affected him so much, that it brought on a most dreadful syncope, and he himself was supposed to be in the like situation. After the usual means had been employed to recal him to life, it was agreed that his body should be dissected, to discover the cause of so sudden a death; but the supposed dead person overhearing this proposal, opened his eyes, started up, and immediately betook himself to his heels.—Cardinal Espinola, prime minister to Philip II. was not so fortunate; for we read in the Memoirs of Amelot de la Houssai, that he put his hand to the knife with which he was opened in order to be embalmed. In short, almost every one knows that Vesalius, the father of anatomy, having been sent for to open a woman subject to hysterics, who was supposed to be dead, he perceived on making the first incision, by her motion and cries, that she was still alive; that this circumstance rendered him so odious, that he was obliged to fly; and that he was so much affected by it, that he died soon after.—On this occasion, we cannot forbear to add an event more recent, but no less melancholy. The abbé Prevost, so well known by his writings and the singularities of his life, was seized with a fit of the apoplexy, in the forest of Chantilly, on the 23d of October 1763. His body was carried to the nearest village, and the officers of justice were proceeding to open it, when a cry which he sent forth affrightened all the assistants, and convinced the surgeon that the abbé was not dead; but it was too late to save him, as he had already received the mortal wound.

Lond. Chron. vol. iv. p. 456.

Even in old age, when life seems to have been gradually drawing to a close, the appearances of death are often fallacious. A lady in Cornwall, more than 80 years of age, who had been a considerable time declining, took to her bed, and in a few days seemingly expired in the morning. As she had often desired not to be buried till she had been two days dead, her request was to have been regularly complied with by her relations. All that saw her looked upon her as dead, and the report was current through the whole place; nay, a gentleman of the town actually wrote to his friend in the island of Scilly that she was deceased. But one of those who were paying the last kind office of humanity to her remains, perceived some warmth about the middle of the back; and acquainting her friends with it, they applied a mirror to her mouth: but, after repeated trials, could not observe it in the least stained; her under jaw was likewise fallen, as the common phrase is; and, in short, she had every appearance of a dead person. All this time she had not been stripped or dressed; but the windows were opened, as is usual in the chambers of the deceased. In the evening the heat seemed to increase, and at length she was perceived to breathe. Interment.

In short, not only the ordinary signs are very uncertain, but we may say the same of the stiffness of the limbs, which may be convulsive; of the dilation of the pupil of the eye, which may proceed from the same cause; of putrefaction, which may equally attack some parts of a living body; and of several others. Haller, convinced of the uncertainty of all these signs, proposes a new one, which he considers as infallible. "If the person (says he) be still in life, the mouth will immediately shut of itself, because the contraction of the muscles of the jaw will awaken their irritability." The jaw, however, may be deprived of its irritability though a man may not be dead. Life is preserved a long time in the passage of the intestines. The sign pointed out by Dr Fothergill appears to deserve more attention: "If the air blown into the mouth (says this physician) passes freely through all the alimentary channel, it affords a strong presumption that the irritability of the internal sphincters is destroyed, and consequently that life is at an end." These signs, which deserve to be confirmed by new experiments, are doubtless not known to undertakers.

The difficulty of distinguishing a person apparently dead from one who is really so, has, in all countries where bodies have been interred too precipitately, rendered it necessary for the law to assist humanity. Of several regulations made on this subject, we shall quote only a few of the most recent; such as those of Arras in 1772; of Mantua in 1774; of the grand duke of Tuscany in 1775; of the senechaussée of Sivrai, in Poitou, in 1777; and of the parliament of Metz in the same year. To give an idea of the rest, it will be sufficient to relate only that of Tuscany. By this edict, the grand duke forbids the precipitate interment of persons who die suddenly. He orders the magistrates of health to be informed, that physicians and surgeons may examine the body; that they may use every endeavour to recal it to life, if possible, or to discover the cause of its death; and that they shall make a report of their procedure to a certain tribunal. On this occasion, the magistrate of health orders the dead not to be covered until the moment they are about to be buried, except so far as decency requires; observing always that the body be not closely confined, and that nothing may compress the jugular veins and the carotid arteries. He forbids people to be interred according to the ancient method; and requires that the arms and the hands should be left extended, and that they should not be folded or placed cross-wise upon the breast. He forbids, above all, to press the jaws one against the other; or to fill the mouth and nostrils with cotton, or other stuffing. Lastly, he recommends not to cover the visage with any kind of cloth until the body is deposited in its coffin.

Interment || Interpolation.

We shall conclude this article by subjoining, from Dr Hawes's *Address to the Public* on this subject, a few of the cases in which this fallacious appearance of death is most likely to happen, together with the respective modes of treatment which he recommends.

In apoplectic and fainting fits, and in those arising from any violent agitation of mind, and also when opium or spirituous liquors have been taken in too great a quantity, there is reason to believe that the appearance of death has been frequently mistaken for the reality. In these cases, the means recommended by the *Humane Society for the Recovery of Drowned Persons* should be persevered in for several hours; and bleeding, which in similar circumstances has sometimes proved pernicious, should be used with great caution. (See the article DROWNING). In the two latter instances it will be highly expedient, with a view of counteracting the soporific effects of opium and spirits, to convey into the stomach, by a proper tube, a solution of tartar emetic, and by various other means to excite vomiting.

From the number of children carried off by convulsions, and the certainty arising from undoubted facts, that some who have in appearance died from that cause have been recovered; there is the greatest reason for concluding, that many, in consequence of this disease, have been prematurely numbered among the dead; and that the fond parent, by neglecting the means of recalling life, has often been the guiltless executioner of her own offspring. To prevent the commission of such dreadful mistakes, no child, whose life has been apparently extinguished by convulsions, should be consigned to the grave till the means of recovery above recommended in apoplexies, &c. have been tried; and, if possible, under the direction of some skilful practitioner of medicine, who may vary them as circumstances shall require.

When fevers arise in weak habits, or when the cure of them has been principally attempted by means of depletion, the consequent debility is often very great, and the patient sometimes sinks into a state which bears so close an affinity to that of death, that there is reason to suspect it has too often deceived the bystanders, and induced them to send for the undertaker when they should have had recourse to the succours of medicine. In such cases, volatiles, *eau de luce* for example, should be applied to the nose, rubbed on the temples, and sprinkled often about the bed; hot flannels, moistened with a strong solution of camphorated spirit, may likewise be applied over the breast, and renewed every quarter of an hour; and as soon as the patient is able to swallow, a teaspoonful of the strongest cordial should be given every five minutes.

The same methods may also be used with propriety in the smallpox when the pustules sink, and death apparently ensues; and likewise in any other acute diseases, when the vital functions are suspended from a similar case.

INTERMITTENT, or INTERMITTING, *Fever*; such fevers as go off and soon return again, in opposition to those which are continual. See MEDICINE *Index*.

INTERPOLATION, among critics, denotes a spurious passage inserted into the writings of some ancient author.

INTERPOLATION, in the modern algebra, is used for finding an intermediate term of a series, its place in the series being given. This method was first invented by Mr Briggs, and applied by him to the calculation of logarithms, &c. See ALGEBRA.

Interpolation || Interrogation.

INTERPOSITION, the situation of a body between two others, so as to hide them, or prevent their action.

The eclipse of the sun is occasioned by an interposition of the moon between the sun and us; and that of the moon by the interposition of the earth between the sun and moon. See ECLIPSE.

INTERPRETER, a person who explains the thoughts, words, or writings, of some other, which before were unintelligible.—The word *interpres*, according to Isidore, is composed of the preposition *inter*, and *partes*, as signifying a person in the middle betwixt two parties, to make them mutually understand each others thoughts: others derive it from *inter*, and *præs*, i. e. *fidejussor*; q. d. a person who serves as security between two others who do not understand one another.

There have been great debates about interpreting Scripture. The Romanists contend, that it belongs absolutely to the church: adding, that where she is silent, reason may be consulted; but where she speaks, reason is to be disregarded. The Protestants generally allow reason the sovereign judge, or interpreter; though some among them have a strong regard to synods, and others to the authority of the primitive fathers. Lastly, others have recourse to the Spirit within every person to interpret for them; which is what Bochart calls αποδειξις τε πνευματος.

INTERREGNUM, the time during which the throne is vacant in elective kingdoms; for in such as are hereditary, like ours, there is no such thing as an interregnum.

INTERREX, the magistrate who governs during an interregnum.

This magistrate was established in old Rome, and was almost as ancient as the city itself: after the death of Romulus there was an interregnum of a year, during which the senators were each interrex in their turn, five days a-piece.

After the establishment of consuls and a commonwealth, though there were no kings, yet the name and function of *interrex* was still preserved: for, when the magistrates were absent, or there was any irregularity in their election, or they had abdicated, so that the comitia could not be held; provided they were unwilling to create a dictator, they made an interrex, whose office and authority was to last five days; after which they made another. To the interrex was delegated all the regal and consular authority, and he performed all their functions. He assembled the senate, held comitia or courts, and took care that the election of magistrates was according to rules. Indeed at first it was not the custom of the interrex to hold comitia, at least we have no instance of it in the Roman history. The patricians alone had the right of electing an interrex; but this office fell with the republic, when the emperors made themselves masters of every thing.

INTERROGATION, EROTESIS, a figure of rhetoric, in which the passion of the speaker introduces a

Interrogation || Interval.

thing by way of question, to make its truth more conspicuous.

The interrogation is a kind of apostrophe which the speaker makes to himself; and it must be owned, that this figure is suited to express most passions and emotions of the mind; it serves also to press and bear down an adversary, and generally adds an uncommon briskness, action, force, and variety, to discourse.

INTERROGATION, in *Grammar*, is a point which serves to distinguish such parts of a discourse, where the author speaks as if he were asking questions. Its form is this (?).

INTERROGATORIES, in *Law*, are particular questions demanded of witnesses brought in to be examined in a cause, especially in the court of chancery. And these interrogatories must be exhibited by the parties in suit on each side; which are either direct for the party that produces them, or counter, on behalf of the adverse party; and generally both plaintiff and defendant may exhibit direct, and counter or cross interrogatories. They are to be pertinent, and only to the points necessary; and either drawn or perused by counsel, and to be signed by them.

INTERSCENDENT, in *Algebra*, is applied to quantities, when the exponents of their powers are radical quantities. Thus, $x\sqrt{^b}$, $x\sqrt{^a}$, &c. are interscendent quantities.

INTERSECTION, in *Mathematics*, the cutting of one line, or plane, by another; or the point or line wherein two lines, or two planes, cut each other.

The mutual intersection of two planes is a right line. The centre of a circle is in the intersection of two diameters. The central point of a regular or irregular figure of four sides, is the point of intersection of the two diagonals.

The equinoxes happen when the sun is in the intersections of the equator and ecliptic.

INTERSPINALES. See ANATOMY, *Table of the Muscles*.

INTERVAL, the distance or space between two extremes, either in time or place. The word comes from the Latin *intervallum*, which according to Isidore, signifies the space *inter fossam & murum*, "between the ditch and the wall:" others note, that the stakes or piles, driven into the ground in the ancient Roman bulwarks, were called *valla*; and the interstices or vacancy between them, *intervalla*.

INTERVAL, in *Music*. The distance between any given sound and another, strictly speaking, is neither measured by any common standard of extension nor duration; but either by immediate sensation, or by computing the difference between the numbers of vibrations produced by two or more sonorous bodies, in the act of sounding, during the same given time. As the vibrations are slower and fewer during the same instant, for example, the sound is proportionally lower or graver; on the contrary, as during the same period the vibrations increase in number and velocity, the sounds are proportionably higher or more acute. An interval in music, therefore, is properly the difference between the number of vibrations produced by one sonorous body of a certain magnitude and texture, and of those produced by another of a different magnitude and texture, in the same time.

Intervals are divided into consonant and dissonant. A consonant interval is that whose extremes, or whose highest and lowest sounds, when simultaneously heard, coalesce in the ear, and produce an agreeable sensation called by Lord Kames a *tertium quid*. A dissonant interval, on the contrary, is that whose extremes, simultaneously heard, far from coalescing in the ear, and producing one agreeable sensation, are each of them plainly distinguished from the other, produce a grating effect upon the sense, and repel each other with an irreconcileable hostility. In proportion as the vibrations of different sonorous bodies, or of the same sonorous body in different modes, more or less frequently coincide during the same given time, the chords are more or less consonant. When these vibrations never coincide at all in the same given time, the discord is consummate, and consequently the interval absolutely dissonant. But for a full account of these, see MUSIC.

Intervi || Intrigu

INTESTATE, in *Law*, a person that dies without making a will.

INTESTINA, in the *Linnæan System*, one of the orders of worms. See HELMINTHOLOGY *Index*.

INTESTINES, INTESTINA, in *Anatomy*, the *guts* or *bowels*; those hollow, membranous, cylindrical parts, extended from the right orifice of the stomach to the anus; by which the chyle is conveyed to the lacteals, and the excrements are voided. See ANATOMY, N° 93.

INTONATION, in *Music*, the action of sounding the notes in the scale with the voice, or any other given order of musical tones. Intonation may be either true or false, either too high or too low, either too sharp or too flat; and then this word *intonation*, attended with an epithet, must be understood concerning the manner of performing the notes.

In executing an air, to form the sounds, and preserve the intervals as they are marked with justness and accuracy, is no inconsiderable difficulty, and scarcely practicable, but by the assistance of one common idea, to which, as to their ultimate test, these sounds and intervals must be referred: these common ideas are those of the key, and the mode in which the performer is engaged; and from the word *tone*, which is sometimes used in a sense almost identical with that of the key, the word *intonation* may perhaps be derived. It may also be deduced from the word *diatonic*, as in that scale it is most frequently conversant; a scale which appears most convenient and most natural to the voice. We feel more difficulty in our intonation of such intervals as are greater or lesser than those of the diatonic order; because, in the first case, the glottis and vocal organs are modified by gradations too large; or too complex, in the second.

INTRENCHMENT, in the military art, any work that fortifies a post against an enemy who attacks. It is generally taken for a ditch or trench with a parapet. Intrenchments are sometimes made of fascines with earth thrown over them, of gabions, hogsheads, or bags filled with earth, to cover the men from the enemy's fire.

INTRIGUE, an assemblage of events or circumstances, occurring in an affair, and perplexing the persons concerned in it. In this sense, it is used to signify the nodus or plot of a play or romance; or that point wherein the principal characters are most embarrassed through

Intrigue ‖ Intuitive evidence.

through the artifice and opposition of certain persons, or the unfortunate falling out of certain accidents and circumstances.

In tragedy, comedy, or an epic poem, there are always two designs. The first and principal is that of the hero of the piece: the second contains the designs of all those who oppose him. These opposite causes produce opposite effects, to wit, the efforts of the hero for the execution of his design, and the efforts of those who thwart it. As these causes and designs are the beginning of the action, so these efforts are the middle, and there form a knot or difficulty which we call the *intrigue*, that makes the greatest part of the poem. It lasts as long as the mind of the reader or hearer is suspended about the event of those opposite efforts: the solution or catastrophe commences when the knot begins to unravel, and the difficulties and doubts begin to clear up.

The intrigue of the Iliad is twofold. The first comprehends three days fighting in Achilles's absence, and consists on the one side in the resistance of Agamemnon and the Greeks, and on the other in the inexorable temper of Achilles. The death of Patroclus unravels this intrigue, and makes the beginning of a second. Achilles resolves to be revenged, but Hector opposes his design; and this forms the second intrigue, which is the last day's battle.

In the Æneid there are also two intrigues. The first is taken up in the voyage and landing of Æneas in Italy; the second is his establishment there: the opposition he met with from Juno in both these undertakings forms the intrigue.

As to the choice of the intrigue, and the manner of unravelling it, it is certain they ought both to spring naturally from the ground and subject of the poem. Bossu gives us three manners of forming the intrigue of a poem: the first is that already mentioned; the second is taken from the fable and design of the poet; in the third the intrigue is so laid, as that the solution follows from it of course.

INTRINSIC, a term applied to the real and genuine values and properties, &c. of any thing, in opposition to their *extrinsic* or *apparent* values.

INTRODUCTION, in general, signifies any thing which tends to make another in some measure known before we have leisure to examine it thoroughly; and hence it is used on a great variety of occasions. Thus we speak of the introduction of one person to another; the introduction to a book, &c.—It is also used to signify the actual motion of any body out of one place into another, when that motion has been occasioned by some other body.

INTRODUCTION, in *Oratory*. See ORATORY, N° 26.

INTUITION, among logicians, the act whereby the mind perceives the agreement or disagreement of two ideas, immediately by themselves, without the intervention of any other; in which case the mind perceives the truth as the eye does the light, only by being directed towards it. See LOGIC, N° 25, 27.

INTUITIVE EVIDENCE, is that which results from INTUITION. Dr Campbell distinguishes different sorts of *intuitive* evidence; one resulting purely from intellection, or that faculty which others have called intuition; another kind arising from consciousness; and a third sort from that new-named faculty *Common Sense*, which this ingenious writer, as well as several others, contends to be a distinct original source of knowledge; whilst others refer its supposed office to the *intuitive* power of the understanding.

Intuitive evidence ‖ Inventory.

INVALID, a person wounded, maimed, or disabled for action by age.

At Chelsea and Greenwich are magnificent HOSPITALS, or rather colleges, built for the reception and accommodation of *invalids*, or soldiers and seamen worn out in the service.

We have also twenty independent companies of invalids, dispersed in the several forts and garrisons.

At Paris is a college of the same kind, called *les Invalides*, which is accounted one of the finest buildings in that city.

INVECTED, in *Heraldry*, denotes a thing fluted or furrowed. See HERALDRY.

INVECTIVE, in *Rhetoric*, differs from reproof, as the latter proceeds from a friend, and is intended for the good of the person reproved; whereas the invective is the work of an enemy, and entirely designed to vex and give uneasiness to the person against whom it is directed.

INVENTION, denotes the act of finding any thing new, or even the thing thus found. Thus we say, *the invention of gunpowder, of printing*, &c. The alcove is a modern invention owing to the Moors.

The Doric, Ionic, and Corinthian orders, are of Greek invention; the Tuscan and Composite of Latin invention. Janson ab Almeloveen has written an Onomasticon of inventions; wherein are shown, in an alphabetical order, the names of the inventors, and the time, place, &c. where they are made. Pancirollus has a treatise of old inventions that are lost, and new ones that have been made; Polydore Virgil has also published eight books of the inventors of things, *De Inventoribus Rerum*.

INVENTION is also used for the finding of a thing bidden. The Romish church celebrates a feast on the 4th of May, under the title of *Invention of the Holy Cross*.

INVENTION is also used for subtility of mind, or somewhat peculiar to a man's genius, which leads him to a discovery of things new; in which sense we say, *a man of invention*.

INVENTION, in *Painting*, is the choice which the painter makes of the objects that are to enter the composition of his piece. See PAINTING.

INVENTION, in *Poetry*, is applied to whatever the poet adds to the history of the subject he has chosen; as well as to the new turn he gives it. See POETRY.

INVENTION, in *Rhetoric*, signifies the finding out and choosing of certain arguments which the orator is to use for the proving or illustrating his point, moving the passions or conciliating the minds of his hearers. Invention, according to Cicero, is the principal part of oratory: he wrote four books *De Inventione*, whereof we have but two remaining. See ORATORY.

INVENTORY, in *Law*, a catalogue or schedule orderly made, of all the deceased person's goods and chattels at the time of his death, with their value appraised by different persons, which every executor or administrator is obliged to exhibit to the ordinary at such time as he shall appoint.

By 21 Hen. VIII. c. v. executors and administrators

Inventory || Inverkeithing.

are to deliver in upon oath to the ordinary, indented inventories, one part of which is to remain with the ordinary, and the other part with the executor or administrator; this is required for the benefit of the creditors and legatees, that the executor or administrator may not conceal any part of the personal estate from them. The statute ordains, that the inventory shall be exhibited within three months after the person's decease; yet it may be done afterwards; for the ordinary may dispense with the time, and even with its being ever exhibited, as in cases where the creditors are paid, and the will is executed.

INVERARY, the county town of Argyleshire, in Scotland, pleasantly situated on a small bay formed by the junction of the river Ary with Loch Fine, where the latter is a mile in width and 60 fathoms in depth. Here is a castle, the principal seat of the dukes of Argyle, chief of the Campbells. It is a modern building of a quadrangular form, with a round tower at each corner; and in the middle rises a square one glazed on every side to give light to the staircase and galleries, which has from without rather a heavy appearance. This castle is built of a coarse *lapis ollaris* brought from the other side of Loch Fine; and is of the same kind with that found in Norway, of which the king of Denmark's palace is built. The founder of the castle, the late Duke Archibald, also formed the design of an entire new town, upon a commodious elegant plan, becoming the dignity of the capital of Argyleshire, a country most admirably situated for fisheries and navigation. The town has been rebuilt agreeable to the original design; and the inhabitants are well lodged in houses of stone, lime, and slate. They are fully employed in arts and manufactures.—The planting around Inverary is extensive beyond conception, and admirably variegated; every crevice, glen, and mountain, displaying taste and good sense.—The population of the town and parish in 1811 was 1134.

The value of the immense wood at this place, for the various purposes of bark, charcoal, forges, paling, furniture, house and ship building, is thus estimated by Mr Knox: "Some of the beech are from 9 to 12 feet in circumference, and the pines from 6 to 9; but these being comparatively few, we shall state the medium girth of 2,000,000 trees planted within these last hundred years, at 3 feet, and the medium value at 4s, which produces 400,000l.; and this, for the most part, upon grounds unfit for the plough, being chiefly composed of hills and rock." One of these hills rises immediately from the house a great height, in the form of a pyramid, and is clothed to the summit with a thick wood of vigorous ornamental trees. On this summit or point Archibald duke of Argyle built a Gothic tower, or observatory, where he sometimes amused himself. The ascent by the road seems to be half a mile, and the perpendicular height about 800 feet.

INVERBERVIE, or BERVIE, a town of Scotland, in Kincardineshire or the Mearns, and a royal borough, 13 miles north-east from Montrose. It lies between two small hills, which terminate in high cliffs towards the sea; it is but a small place, the inhabitants of which are chiefly employed in making thread.

INVERKEITHING, a town of Scotland, in the county of Fife, situated on the northern shore of the frith of Forth, in W. Long. 3. 15. N. Lat. 56. 5. It was much favoured by William, who granted its first charter. He extended its liberties considerably, and in the time of David I. it became a royal residence. The Franciscans had a convent in this town; and, according to Sir Robert Sibbald, the Dominicans had another. The population of the town and parish in 1811 amounted to 2400; and they are employed in the herring fishery, the coal, and coasting trade. It has a considerable trade in coal and other articles.

Inverkeithing || Inverness.

INVERLOCHY, an ancient castle in the neighbourhood of *Fort-William* in Inverness-shire. It is adorned with large round towers; and, by the mode of building, seems to have been the work of the English in the time of Edward I. who laid large fines on the Scotch barons for the purpose of erecting new castles. The largest of these towers is called *Cumin's*. But long prior to these ruins, Inverlochy, according to Boece, had been a place of great note, a most opulent city, remarkable for the vast resort of French and Spaniards, probably on account of trade. It was also a seat of the kings of Scotland, for here Achaius in the year 790 signed (as is reported) the league offensive and defensive between himself and Charlemagne. In after-times it was utterly destroyed by the Danes, and never again restored.

In the neighbourhood of this place were fought two fierce battles, one between Donald Balloch brother to Alexander lord of the Isles, who with a great power invaded Lochaber in the year 1427: he was met by the earls of Mar and Caithness; the last was slain, and their forces totally defeated. Balloch returned to the isles with vast booty. Here also the Campbells under the marquis of Argyle, were in February 1645, defeated by Montrose. Fifteen hundred fell in the action and in the pursuit, with the loss only of three to the royalists.

INVERNESS, capital of a county of the same name in Scotland, is a parliament-town, finely seated on the river Ness, over which there is a stone bridge of seven arches, in W. Long. 4. N. Lat. 57. 36. It is large, well built, and very populous, being the most northerly town of any note in Britain. As there are always regular troops in its neighbourhood, there is a great air of politeness, a plentiful market, and more money and business stirring than could have been expected in such a remote part of the island. The country in the neighbourhood is remarkably well cultivated; and its produce clearly shows that the soil and climate are not despicable. The salmon-fishery in the Ness is very considerable, and is let to London fishmongers. Some branches both of the woollen, linen, and hemp manufacture, are also carried on here; and, in consequence of the excellent military roads, there is a great proportion of inland trade. But besides all this, Inverness is a port with 20 creeks dependent upon it, part on the Murray frith to the east, and part on the north of the town, reaching even the south border of the county of Caithness. Inverness has several good schools; and an academy was erected some years ago on an extensive and liberal plan. The inhabitants speak the Erse and English language promiscuously. On an eminence near the town are the remains of a castle, where, according to some historians, the famous Macbeth murdered Duncan his royal guest. Population 11,353 in 1811.

Inverness-shire.

Inverness-Shire, a county of Scotland, bounded on the north by Ross-shire; on the east by the shires of Nairne, Murrry, and Aberdeen; on the south, by those of Perth and Argyle; and on the west by the Atlantic ocean. Its extent from north to south is above 50 miles; from east to west about 80.—The northern part of this county is very mountainous and barren. In the district of Glenelg are seen the ruins of several ancient circular buildings, similar to those in the Western Isles, Sutherland, and Ross-shire; concerning the uses of which antiquaries are not agreed. In their outward appearance they are round and tapering like glass-houses. In the heart of the wall, which is perpendicular within, there are horizontal galleries going quite round and connected by stairs. These ascend toward the top, which is open. They are all built of stone, without lime or mortar of any kind. They have no opening outward, except the doors and the top; but there are several in the inside, as windows to the galleries. From Bernera barracks, in this district, proceeds the military road to Inverness.

This county is nearly divided by water, so that by means of the Caledonian canal uniting Loch Ness, Loch Oich, Loch Lochy, and Lochiel or Loch Eil, a communication will be opened between the eastern and western seas. This great undertaking, it is expected, will be completed in 1822. In this tract, Fort George, Fort Augustus, and Fort William, form what is called the *Chain of Forts* across the island. By means of Fort George on the east, all entrance up the frith towards Inverness is prevented; Fort Augustus curbs the inhabitants midway; and Fort William is a check to any attempts in the west. Detachments are made from all these garrisons to Inverness, Bernera barracks opposite to the isle of Skye, and Castle Duart in the isle of Mull.

The river Ness, upon which the capital of the shire is situated, is the outlet of the great lake called *Loch Ness*. This beautiful lake is 22 miles in length, and for the most part one in breadth. It is skreened on the north-west by the lofty mountains of Urquhart and Mealfourvony, and bordered with coppices of birch and oak. The adjacent hills are adorned with many extensive forests of pine; which afford shelter to the cattle, and are the retreat of stags and deer. There is much cultivation and improvements on the banks of Loch Ness; and the pasture-grounds in the neighbouring valleys are excellent.—From the south, the river Fyers descends towards this lake. Over this river there is built a stupendous bridge, on two opposite rocks; the top of the arch is above 100 feet from the level of the water. A little below the bridge is the celebrated Fall of Fyers, where a great body of water darts through a narrow gap between two rocks, then falls over a vast precipice into the bottom of the chasm, where the foam rises and fills the air like a great cloud of smoke.

Loch Oich is a narrow lake, stretching about four miles from east to west. It is adorned with some small wooded islands, and is surrounded with ancient trees. Near this is the family seat of Glengary, surrounded by natural woods of full grown fir, which extend nine or ten miles along the banks of the river Gary. The waters of Loch Oich flow through Loch Ness into the eastern sea.—Loch Lochy transmits its waters in an opposite direction, this being the highest part of the vast flat tract that here stretches from sea to sea. This extensive lake is above ten miles in length, and from one to two in breadth. From the west, the waters of Loch Arkek descend into this lake. Out of it runs the river Lochy, which about a mile below its issue from the lake receives the Spean, a considerable river, over which there is a magnificent bridge, built by General Wade, about two miles above the place where it falls into the Lochy. These united streams traversing the plains of Lochaber, after a course of five or six miles, fall into Loch Eil.

Inverness-shire.

A few miles to the south-east of Loch Lochy is Glenroy or King's Vale. The north-east end of this valley opens on Loch Spey. A small river passes along the bottom of the vale, accompanied by a modern road. On the declivity of the mountains, about a mile from the river, on either hand, are seen several parallel roads of great antiquity. On the north-west side, five of these roads run parallel and close by each other. On the opposite side there are three other roads exactly similar. These roads are 30 feet broad, all perfectly horizontal, and extend eight or nine miles in length. Their destination or use has baffled the conjectures of antiquaries.—Not far from Fort Augustus soars the pointed summit of Bennevis, which is esteemed the highest mountain in Britain, rising more than 4300 feet above the level of the sea.—In the districts of Moydart, Arasaick, Morer, and Knoydart, there are numerous bays and creeks, along the coast, many of which might be excellent fishing stations.

The southern part of this county is very mountainous, and is supposed to be the most elevated ground in Scotland. From its numerous lakes many streams descend toward both seas. In the extensive district called *Badenoch* lies Loch Spey, the source of the great river Spey, which proceeding eastward with an increasing stream, enters the shire of Murray at Rothiemurchus, after having expanded into a fine lake. Not far from this is seen the lofty top of Cairngorm; a mountain celebrated for its beautiful rock-crystals of various tints. These are much esteemed by lapidaries; and some of them, having the lustre of fine gems, bring a very high price. Limestone, iron-ore, and some traces of different minerals, are found in the county; but no mines have yet been worked with much success. Its rivers and lakes afford abundance of salmon and trout. The extensive plains which surround the lakes are in general fertile; and the high grounds feed many sheep and black cattle, the rearing and selling of which form the chief trade of the inhabitants.—By the present spirited exertions of the gentlemen in this populous county, the commerce and the industry of the inhabitants have of late been greatly increased; and to facilitate the communication with other parts, application has been made to parliament for leave to levy a tax on the proprietors of land for improving the roads and erecting bridges in this extensive shire. The commonalty in the high parts of the county and on the western shore speak Gaelic; but the people of fashion in Inverness and its vicinity use the English language, and pronounce it with remarkable propriety.

The

Inverness-shire || Inversion.

The following is a view of the population of the different parishes in the county at two different periods*.

	Parishes.	Population in 1755.	Population in 1790—1798.
1	Abernethy	1670	1769
	Alvie	1021	1011
	Ardersier	428	1298
	Boleskine	1961	1741
5	Conveth or Kiltarlity	1964	2495
	Cromdale	3063	3000
	Croy	1901	1552
	Daviot	2176	1697
	Durris	1520	1365
10	Glenelg	1816	2746
	Inverness	9730	10,527
	Kilmanivaig	2995	2400
	Kilmalie	3093	4031
	Kilmorack	2830	2318
15	Kingussie	1900	1983
	Kirkhill	1360	1570
	Laggan	1460	1512
	Moy	1693	1813
	Petty	1643	1518
20	Urquhart	1943	2355
	Continental part	46,167	48,701
	Islands.		
	Sky — Bracadale	1907	2250
	Sky — Diurinish	2568	3000
	Sky — Kilmuir	1572	2065
	Sky — Portree	1385	1980
25	Sky — Sleat	1250	1788
	Sky — Snizort	1627	1808
	Sky — Strath	743	1579
		11,252	14,470
	Barry	1150	1604
	South Uist	2209	3450
30	North Uist	1909	3218
31	Harris	1969	2536
	Total islands	18,489	25,278
	Total	65,656	73,979
	Population in 1811,	78,336	

See INVERNESS-SHIRE, SUPPLEMENT.

* *Statist. Hist.* vol. xx.

INVERSE, is applied to a manner of working the rule of three. See ARITHMETIC, N° 13.

INVERSION, the act whereby any thing is inverted or turned backwards. Problems in geometry and arithmetic are often proved by inversion; that is, by a contrary rule or operation.

INVERSION, in *Grammar*, is where the words of a phrase are ranged in a manner not so natural as they might be. For an instance: "Of all vices, the most abominable, and that which least becomes a man, is impurity." Here is an inversion; the natural order being this: Impurity is the most abominable of all vices, and that which least becomes a man.—An inversion is not always disagreeable, but sometimes has a good effect.

INVERTED, in *Music*, is derived from the Latin preposition *in*, and *vertere*, "to turn any thing a contrary way." Inverted || Invocation.

It signifies a change in the order of the notes which form a chord, or in the parts which compose harmony; which happens by substituting in the bass, those sounds which ought to have been in the upper part; an operation not only rendered practicable, but greatly facilitated by the resemblance which one note has to another in different octaves; whence we derive the power of exchanging one octave for another with so much propriety and success, or by substituting in the extremes those which ought to have occupied the middle station; and *vice versa*. See MUSIC.

INVESTIGATION, properly denotes the searching or finding out any thing by the tracks or prints of the feet; whence mathematicians, schoolmen, and grammarians, come to use the term in their respective researches.

INVESTING *a* PLACE, is when a general, having an intention to besiege it, detaches a body of horse to possess all the avenues; blocking up the garrison, and preventing relief from getting into the place, till the army and artillery are got up to form the siege.

INVESTITURE, in *Law*, a giving livery of seisin or possession. There was anciently a great variety of ceremonies used upon investitures; as at first they were made by a certain form of words, and afterwards by such things as had the greatest resemblance to the thing to be transferred: thus, where lands were intended to pass, a turf, &c. was delivered by the granter to the grantee. In the church, it was customary for princes to make investiture of ecclesiastical benefices, by delivering to the person they had chosen a pastoral staff and a ring.

INVISIBLE LADY, an amusing experiment in *Acoustics*, which was exhibited in this country, first by a Frenchman, and afterwards by others; in which, from the construction of the apparatus, a lady who conversed, sung and played on musical instruments, seemed to be enclosed in a hollow metallic globe, of about a foot in diameter. See *SCIENCE, Amusements of*.

INULA, ELECAMPANE; a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See BOTANY *Index*.

INUNDATÆ, the name of the 15th order in Linnæus's fragments of a natural method; consisting of plants which grow in the water. See BOTANY, p. 309.

INUNDATION, a sudden overflowing of the dry land by the waters of the ocean, rivers, lakes, springs, or rains.

INVOCATION, in *Theology*, the act of adoring God, and especially of addressing him in prayer for his assistance and protection. See the articles ADORATION and PRAYER.

The difference between the invocation of God and of the saints, as practised by the Papists, is thus explained in the catechism of the council of Trent. "We beg of God (says the catechism), to give us good things, and to deliver us from evil; but we pray to the saints, to intercede with God and obtain those things which we stand in need of. Hence we use different forms in praying to God and to the saints: to the former we say, *hear*

Invocation ‖ Joab.

hear us, have mercy on us; to the latter we only say, *pray for us.*" The council of Trent expressly teaches, that the saints who reign with Jesus Christ offer up their prayers to God for men; and condemns those who maintain the contrary doctrine. The Protestants reject and censure this practice as contrary to Scripture, deny the truth of the fact, and think it highly unreasonable to suppose that a limited finite being should be in a manner omnipresent, and at one and the same time hear and attend to the prayers that are offered to him in England, China, and Peru; and from thence infer, that if the saints cannot hear their requests, it is inconsistent with common sense to address any kind of prayer to them.

INVOCATION, in *Poetry*, an address at the beginning of a poem, wherein the poet calls for the assistance of some divinity, particularly of his muse, or the deity of poetry.

INVOICE, an account in writing of the particulars of merchandise, with their value, customs, charges, &c. transmitted by one merchant to another in a distant country.

INVOLUCRUM, among botanists, expresses that sort of cup which surrounds a number of flowers together, every one of which has beside this general cup its own particular perianthium. The involucrum consists of a multitude of little leaves disposed in a radiated manner. See CALYX.

INVOLUTION, in *Algebra*, the raising any quantity from its root to any height or power assigned.—See ALGEBRA.

IO, in fabulous history, daughter of Inachus, or according to others of Jasus or Pirene, was priestess of Juno at Argos. Jupiter became enamoured of her; but Juno, jealous of his intrigues, discovered the object of his affection, and surprised him in the company of Io. Jupiter changed his mistress into a beautiful heifer; and the goddess, who well knew the fraud, obtained from her husband the animal whose beauty she had condescended to commend. Juno commanded the hundred-eyed Argus to watch the heifer; but Jupiter, anxious for the situation of Io, sent Mercury to destroy Argus, and to restore her to liberty. Io, freed from the vigilance of Argus, was now persecuted by Juno, who sent one of the Furies to torment her. She wandered over the greatest part of the earth, and crossed over the sea, till at last she stopped on the banks of the Nile, still exposed to the unceasing torments of the Fury. Here she entreated Jupiter to restore her to her natural form; and when the god had changed her from a heifer into a woman, she brought forth Epaphus. Afterwards she married Telegonus king of Egypt, or Osiris according to others; and she treated her subjects with such mildness and humanity, that after death she received divine honours, and was worshipped under the name of *Isis*. According to Herodotus, Io was carried away by Phœnician merchants, who wished to make reprisals for Europa who had been stolen from them by the Greeks.

JOAB, general of the army of King David, defeated the Syrians and the other enemies of David, and took the fort of Zion from the Jebusites, who, thinking it impregnable, committed it to the care of the lame and blind, whom they placed on the walls. He signalized himself in all David's wars, but was guilty of basely murdering Abner and Amasa. He procured a reconciliation between Absalom and David; and afterwards slew Absalom, contrary to the express orders of the king. He at length joined Adonijah's party; and was put to death by the order of Solomon, 1014 B. C.

Joab ‖ Joan d'Arc.

JOACHIMITES, in *Church-History*, the disciples of Joachim a Cistertian monk, who was an abbot of Flora in Calabria, and a great pretender to inspiration.

The Joachimites were particularly fond of certain ternaries: The Father, they said, operated from the beginning till the coming of the Son; the Son, from that time to theirs, which was the year 1260; and from that time the Holy Spirit was to operate in his turn. They also divided every thing relating to men, to doctrine, and the manner of living, into three classes, according to the three persons in the Trinity: The first ternary was that of men; of whom the first class was that of married men, which had lasted during the whole period of the Father; the second was clerks, which had lasted during the time of the Son; and the last was that of the monks, in which there was to be an uncommon effusion of grace by the Holy Spirit: The second ternary was that of doctrine, viz. the Old Testament, the New, and the everlasting Gospel; the first they ascribed to the Father, the second to the Son, and the third to the Holy Spirit: A third ternary consisted in the manner of living, viz. under the Father, men lived according to the flesh; under the Son, they lived according to the flesh and the spirit; and under the Holy Ghost, they were to live according to the spirit only.

JOAN, POPE, called by Platina *John VIII.* is said to have held the holy see between Leo IV. who died in 855, and Benedict III. who died in 858. Marianus Scotus says, she sat two years five months and four days. Numberless have been the controversies, fables, and conjectures, relating to this pope. It is said that a German girl, pretending to be a man, went to Athens, where she made great progress in the sciences; and afterward came to Rome in the same habit. As she had a quick genius, and spoke with a good grace in the public disputations and lectures, her great learning was admired, and every one loved her extremely; so that after the death of Leo, she was chosen pope, and performed all offices as such. Whilst she was in possession of this high dignity, she was got with child; and as she was going in a solemn procession to the Lateran church, she was delivered of that child, between the Coliseum and St Clement's church, in a most public street, before a crowd of people, and died on the spot, in 857. By way of embellishing this story, may be added the precaution reported to have been afterward taken to avoid such another accident. After the election of a pope, he was placed on a chair with an open seat, called the *groping chair*, when a deacon came most devoutly behind and satisfied himself of the pontiff's sex by feeling. This precaution, however, has been long deemed unnecessary, because the cardinals, it is alleged, take care to become fathers before they arrive at the pontificate.

Joan d'Arc, or the Maid of Orleans, whose heroic behaviour in reanimating the expiring valour of the French nation, though by the most superstitious means,

(pretending

Joan d'Arc || Joel.

(pretending to be inspired), deserved a better fate. She was burnt by the English as a sorceress in 1421, aged 24. See FRANCE, N° 101.

JOANNA, St, or HINZUAN, one of the Comora islands in the Indian ocean. E. Long. 44. 15. S. Lat. 12. 30. See HINZUAN.

JOB, or *Book of Job*, a canonical book of the Old Testament, containing a narrative of a series of misfortunes which happened to a man whose name was *Job*, as a trial of his virtue and patience; together with the conferences he had with his cruel friends on the subject of his misfortunes, and the manner in which he was restored to ease and happiness. This book is filled with those noble, bold, and figurative expressions, which constitute the very soul of poetry.

Many of the Jewish rabbins pretend that this relation is altogether a fiction; others think it a simple narrative of a matter of fact just as it happened: while a third sort of critics acknowledge, that the groundwork of the story is true, but that it is written in a poetical strain, and decorated with peculiar circumstances, to render the narration more profitable and entertaining.

The time is not set down in which Job lived. Some have thought that he was much ancienter than Moses, because the law is never cited by Job or his friends, and because it is related that Job himself offered sacrifices. Some imagine that this book was written by himself; others say, that Job wrote it originally in Syriac or Arabic, and that Moses translated it into Hebrew: but the rabbins generally pronounce Moses to be the author of it; and many Christian writers are of the same opinion.

JOBBER, a person who undertakes jobs, or small pieces of work.

In some statutes, jobber is used for a person who buys and sells for others. See BROKER.

JOBBING, the business of a jobber.

Stock-Jobbing, denotes the practice of trafficking in the public funds, or of buying and selling stock with a view to its rise or fall. The term is commonly applied to the illegal practice of buying and selling stock for time, or of accounting for the differences in the rise or fall of any particular stock for a stipulated time, whether the buyer or seller be possessed of any such real stock or not. See *Stock-Broker*.

JOCASTA, in fabulous history, a daughter of Menœceus, who married Laius king of Thebes, by whom she had Oedipus. She afterwards married her son Oedipus, without knowing who he was, and had by him Eteocles, Polynices, &c. When she discovered that she had married her own son and been guilty of incest, she hanged herself in despair. She is called *Epicasta* by some mythologists.

JOCKEY, in the management of horses; the person who trims up, and rides about horses for sale.

JOEL, or *the Prophecy of Joel*, a canonical book of the Old Testament. Joel was the son of Pethuel, and the second of the twelve lesser prophets. The style of this prophet is figurative, strong, and expressive. He upbraids the Israelites for their idolatry, and foretels the calamities they should suffer as the punishment of that sin: but he endeavours to support them with the comfort that their miseries should have an end upon their reformation and repentance. Some writers, inferring the order of time in which the minor prophets lived from the order in which they are placed in the Hebrew copies, conclude that Joel prophesied before Amos, who was contemporary with Uzziah, king of Judah. Archbishop Usher makes this inference from Joel's foretelling that drought, chap. iv. 7, 8, 9. If we consider the main design of Joel's prophecy, we shall be apt to conclude, that it was uttered after the captivity of the ten tribes; for he directs his discourse only to Judah, and speaks distinctly of the sacrifices and oblations that were daily made in the temple.

Joel || Jogues.

JOGHIS, a sect of heathen religious in the East Indies, who never marry, nor hold any thing in private property; but live on alms, and practise strange severities on themselves.

They are subject to a general, who sends them from one country to another to preach. They are, properly, a kind of penitent pilgrims; and are supposed to be a branch of the ancient Gymnosophists.

They frequent, principally, such places as are consecrated by the devotion of the people, and pretend to live several days together without eating or drinking. After having gone through a course of discipline for a certain time, they look on themselves as impeccable, and privileged to do any thing; upon which they give a loose to their passions, and run into all manner of debauchery.

JOGUES, or YOOGS, certain ages, eras, or periods, of extraordinary length, in the chronology of the Hindoos. They are four in number; of which the following is an account, extracted from Halhed's Preface to the Code of Gentoo Laws, p. xxxvi.

1. The *Suttee Jogue* (or age of purity) is said to have lasted three million two hundred thousand years; and they hold that the life of man was extended in that age to one hundred thousand years, and that his stature was 21 cubits.

2. The *Tirtah Jogue* (in which one-third of mankind was corrupted) they suppose to have consisted of two million four hundred thousand years, and men lived to the age of ten thousand years.

3. The *Dwapaar Jogue* (in which half of the human race became depraved) endured one million six hundred thousand years, and the life of man was then reduced to a thousand years.

4. The *Collee Jogue* (in which all mankind are corrupted, or rather lessened, for that is the true meaning of *Collee*) is the present era, which they suppose ordained to subsist four hundred thousand years, of which near five thousand are already past; and the life of man in that period is limited to one hundred years.

Concerning the Indian chronology, we have already had occasion to be pretty copious; see HINDOOS, N° 19, 22. We shall here, however, subjoin Dr Robertson's observations on the above periods, from the Notes to his *Historical Disquisition concerning India*.

"If (says he *) we suppose the computation of time in the Indian chronology to be made by solar or even by lunar years, nothing can be more extravagant in itself, or more repugnant to our mode of calculating the duration of the world, founded on sacred and infallible authority. From one circumstance, however, which merits attention, we may conclude, that the information

* p. 360.

Jogues, John.

tion which we have hitherto received concerning the chronology of the Hindoos is very incorrect. We have, as far as I know, only five original accounts of the different Jogues or eras of the Hindoos. The first is given by M. Rogers, who received it from the Brahmins on the Coromandel coast. According to it, the Suttee Jogue is a period of one million seven hundred and twenty-eight thousand years; the Tirtah Jogue is one million two hundred and ninety-six thousand years; the Dwapaar Jogue is eight hundred and sixty-four thousand. The duration of the Collee Jogue he does not specify (*Porte Ouverte*, p. 179.). The next is that of M. Bernier, who received it from the Brahmins of Benares. According to him, the duration of the Suttee Jogue was two million five hundred thousand years; that of the Tirtah Jogue, one million two hundred thousand years; that of the Dwapaar Jogue is eight hundred and sixty-four thousand years. Concerning the period of the Collee Jogue he is likewise silent (*Voyages*, tom. ii. p. 160.). The third is that of Colonel Dow; according to which the Suttee Jogue is a period of fourteen million of years, the Tirtah Jogue one million and eighty thousand, the Dwapaar Jogue seventy-two thousand, and the Collee Jogue thirty-six thousand years; (*Hist. of Hindost.* vol. i. p. 2.). The fourth account is that of M. le Gentil, who received it from the Brahmins of the Coromandel coast; and as his information was acquired in the same part of India, and derived from the seme source with that of M. Rogers, it agrees with his in every particular; (*Mem. de l'Academ. des Sciences pour* 1772, tom. ii. part i. p. 176.). The fifth is the account of Mr Halhed, which has been already given. From this discrepancy, not only of the total numbers, but of many of the articles in the different accounts, it is manifest that our information concerning Indian chronology is hitherto as uncertain, as the whole system of it is wild and fabulous. To me it appears highly probable, that when we understand more thoroughly the principles upon which the factitious eras or jogues of the Hindoos have been formed, that we may be more able to reconcile their chronology to the true mode of computing time, founded on the authority of the Old Testament; and may likewise find reason to conclude, that the account given by their astronomers of the situation of the heavenly bodies at the beginning of the Collee Jogue, is not established by actual observation, but the result of a retrospective calculation."

JOHN, St, the BAPTIST, the forerunner of Jesus Christ, was the son of Zacharias and Elizabeth. He retired into a desert, where he lived on locusts and wild honey; and about the year 29 began to preach repentance, and to declare the coming of the Messiah. He baptized his disciples, and the following year Christ himself was baptized by him in the river Jordan. Some time after, having reproved Herod Antipas, who had a criminal correspondence with Herodias his brother Philip's wife, he was cast into prison, where he was beheaded. His head was brought to Herodias; who, according to St Jerome, pierced his tongue with the bodkin she used to fasten up her hair, to revenge herself after his death for the freedom of his reproofs.

JOHN, *St*, the apostle, or the evangelist, was the brother of St James the Great, and the son of Zebedee. He quitted the business of fishing to follow Jesus, and was his beloved disciple. He was witness to the actions and miracles of his Master; was present at his transfiguration on Mount Tabor; and was with him in the garden of olives. He was the only apostle who followed him to the cross; and to him Jesus left the care of his mother. He was also the first apostle who knew him again after his resurrection. He preached the faith in Asia; and principally resided at Ephesus, where he maintained the mother of our Lord. He is said to have founded the churches of Smyrna, Pergamus, Thyatira, Sardis, Philadelphia, and Laodicea. He is also said to have preached the gospel among the Parthians, and to have addressed his first epistle to that people. It is related, that, when at Rome, the emperor Domitian caused him to be thrown into a caldron of boiling oil, when he came out unhurt; on which he was banished to the isle of Patmos, where he wrote his Apocalypse. After the death of Domitian he returned to Ephesus, where he composed his Gospel, about the year 96; and died there, in the reign of Trajan, about the year 100, aged 94.

John.

Gospel of St JOHN, a canonical book of the New Testament, containing a recital of the life, actions, doctrine, and death, of our Saviour Jesus Christ, written by St John the apostle and evangelist.

St John wrote his Gospel at Ephesus, after his return from the isle of Patmos, at the desire of the Christians of Asia. St Jerome says he would not undertake it, but on condition that they should appoint a public fast, to implore the assistance of God; and, that the fast being ended, St John, filled with the Holy Ghost, broke out into these words: "In the beginning was the Word," &c. The ancients assign two reasons for this undertaking: the first is, because, in the other three Gospels, there was wanting the history of the beginning of Jesus Christ's preaching till the imprisonment of John the Baptist, which therefore he applied himself particularly to relate. The second reason was, in order to remove the errors of the Cerinthians, Ebionites, and other sects. But Mr Lampe and Dr Lardner have urged several reasons to show that St John did not write against Cerinthus or any other heretics in his Gospel.

Revelation of St JOHN. See APOCALYPSE.

JOHN of Salisbury, bishop of Chartres in France, was born at Salisbury in Wiltshire, in the beginning of the 12th century. Where he imbibed the rudiments of his education is unknown: but we learn that in the year 1136, being then a youth, he was sent to Paris, where he studied under several eminent professors, and acquired considerable fame for his application and proficiency in rhetoric, poetry, divinity, and particularly in the learned languages. Thence he travelled to Italy: and, during his residence at Rome was in high favour with Pope Eugenius III. and his successor Adrian IV. After his return to England, he became the intimate friend and companion of the famous Thomas Becket, archbishop of Canterbury, whom he attended in his exile, and is said to have been present when that haughty prelate was murdered in his cathedral. What preferment he had in the church during this time does not appear; but in 1176 he was promoted by King Henry II. to the bishopric of Chartres in France, where he died in 1182. This John of Salisbury was really a phenomenon. He was one of the first

John. restorers of the Greek and Latin languages in Europe; a classical scholar, a philosopher, a learned divine, and an elegant Latin poet. He wrote several books; the principal of which are, his Life of St Thomas of Canterbury, a collection of letters, and Polycraticon.

Pope John XII. a native of Cahors, before called *James d'Euse*, was well skilled in the civil and canon law; and was elected pope after the death of Clement V. on the 7th of August 1316. He published the constitutions called *Clementines*, which were made by his predecessor; and drew up the other constitutions called *Extravagantes*. Lewis of Bavaria being elected emperor, John XXII. opposed him in favour of his competitor; which made much noise, and was attended with fatal consequences. That prince, in 1320, caused the antipope Peter de Corbiero, a cordelier, to be elected, who took the name of Nicholas V. and was supported by Michael de Cesenne, general of his order; but that antipope was the following year taken, and carried to Avignon, where he begged pardon of the pope with a rope about his neck, and died in prison two or three years after. Under this pope arose the famous question among the cordeliers, called *the bread of the cordeliers*; which was, Whether those monks had the property of the things given them, at the time they were making use of them? for example, Whether the bread belonged to them when they were eating it, or to the pope, or to the Roman church? This frivolous question gave great employment to the pope; as well as those which turned upon the colour, form, and stuff, of their habits, whether they ought to be white, gray, or black; whether the cowl ought to be pointed or round, large or small; whether their robes ought to be full, short, or long; of cloth, or of serge, &c. The disputes on all these minute trifles were carried so far between the minor brothers, that some of them were burned upon the occasion. He died at Avignon in 1334, aged 90.

JOHN, king of England. See ENGLAND, N° 135, 147.

John of Fordoun. See FORDOUN.

John of Gaunt, duke of Lancaster, a renowned general, father of Henry IV. king of England, died in 1438.

John of Leyden, otherwise called *Buccold*. See ANABAPTISTS.

John Sobieski of Poland, one of the greatest warriors in the 17th century, was, in 1665, made grand-marshal of the crown; and, in 1667, grand-general of the kingdom. His victories obtained over the Tartars and the Turks procured him the crown, to which he was elected in 1674. He was an encourager of arts and sciences, and the protector of learned men. He died in 1696, aged 72.

St John's Day, the name of two Christian festivals; one observed on June 24th, kept in commemoration of the wonderful circumstances attending the birth of John the Baptist; and the other on December 27. in honour of St John the Evangelist.

St John's Wort. See HYPERICUM, BOTANY *Index*.

JOHN'S, *St*, an island of the East Indies, and one of the Philippines, east of Mindanao, from which it is separated by a narrow strait. E. Long. 125. 25. N. Lat. 7. 0.

JOHN'S, *St*, an island of North America, in the bay of St Lawrence, having New Scotland on the south and west, and Cape Breton on the east. The British got possession of it when Louisbourg was surrendered to them, on July 26. 1758. John's, Johnson.

JOHNSON, BEN, one of the most considerable dramatic poets of the last age, whether we consider the number or the merit of his productions. He was born at Westminster in 1574, and was educated at the public school there under the great Camden. He was descended from a Scottish family; and his father, who lost his estate under Queen Mary, dying before our poet was born, and his mother marrying a bricklayer for her second husband, Ben was taken from school to work at his father-in-law's trade. Not being captivated with this employment, he went into the Low Countries, and distinguished himself in a military capacity. On his return to England, he entered himself at St John's college, Cambridge; and having killed a person in a duel, was condemned, and narrowly escaped execution. After this he turned actor; and Shakespeare is said to have first introduced him to the world, by recommending a play of his to the stage, after it had been rejected. His Alchymist gained him such reputation, that in 1619 he was, at the death of Mr Daniel, made poet-laureat to King James I. and master of arts at Oxford. As we do not find Johnson's economical virtues anywhere recorded, it is the less to be wondered at, that after this we find him petitioning King Charles, on his accession, to enlarge his father's allowance of 100 merks into pounds; and quickly after we learn that he was very poor and sick, lodging in an obscure alley; on which occasion it was, that Charles, being prevailed on in his favour, sent him ten guineas; which Ben receiving said, "His majesty has sent me ten guineas, because I am poor, and live in an alley; go and tell him, that his soul lives in an alley." He died in August 1637, aged 63 years, and was buried in Westminster-Abbey.—The most complete edition of his works was printed in 1756, in 7 vols 8vo.

JOHNSON, *Dr Samuel*, who has been styled the brightest ornament of the 18th century, was born in the city of Litchfield in Staffordshire, on the 18th of September N. S. 1709. His father Michael was a bookseller; and must have had some reputation in the city, as he more than once bore the office of chief magistrate. By what casuistical reasoning he reconciled his conscience to the oaths required to be taken by all who occupy such stations, cannot now be known; but it is certain that he was zealously attached to the exiled family, and instilled the same principles into the youthful mind of his son. So much was he in earnest in this work, and at so early a period did he commence it, that when Dr Sacheverel, in his memorable tour through England, came to Litchfield, Mr Johnson carried his son, not then quite three years old, to the cathedral, and placed him on his shoulders, that he might see as well as hear the far-famed preacher.

But political prejudices were not the only bad things which young Sam inherited from his father: he derived from the same source a morbid melancholy, which, though it neither depressed his imagination, nor clouded his perspicuity, filled him with dreadful apprehensions of insanity, and rendered him wretched through life.

Johnson. life. From his nurse he contracted the *scrofula* or king's evil, which made its appearance at a very early period, disfigured a face naturally well-formed, and deprived him of the sight of one of his eyes.

When arrived at a proper age for grammatical instruction, he was placed in the free school of Litchfield, of which one Mr Hunter was then master; a man whom his illustrious pupil thought "very severe, and wrong-*headedly* severe," because he would beat a boy for not answering questions which he could not expect to be asked. He was, however, a skilful teacher; and Johnson, when he stood in the very front of learning, was sensible how much he owed to him; for upon being asked how he had acquired so accurate a knowledge of the Latin tongue, he replied, "My master beat me very well; without that, Sir, I should have done nothing."

At the age of 15 Johnson was removed from Litchfield to the school of Stourbridge in Worcestershire, at which he remained little more than a year, and then returned home, where he staid two years without any settled plan of life or any regular course of study. He read, however, a great deal in a desultory manner, as chance threw books in his way, and as inclination directed him through them; so that when in his 19th year he was entered a commoner of Pembroke college, Oxford, his mind was stored with a variety of such knowledge as is not often acquired in universities, where boys seldom read any books but what are put into their hands by their tutors. He had given very early proofs of his poetical genius both in his school exercises and in other occasional compositions: but what is perhaps more remarkable, as it shows that he must have thought much on a subject on which other boys of that age seldom think at all, he had before he was 14 entertained doubts of the truth of revelation. From the melancholy of his temper these would naturally prey upon his spirits, and give him great uneasiness: but they were happily removed by a proper course of reading; for "his studies being honest, ended in conviction. He found that religion is true; and what he had learned, he ever afterwards endeavoured to teach."

Concerning his residence in the university and the means by which he was there supported, his two principal biographers contradict each other; so that these are points of which we cannot write with certainty. According to Sir John Hawkins, the time of his continuance at Oxford is divisible into two periods: Mr Boswell represents it as only one period, with the usual interval of a long vacation. Sir John says, that he was supported at college by Mr Andrew Corbet in quality of assistant in the studies of his son: Mr Boswell assures us, that though he was promised pecuniary aid by Mr Corbet, that promise was not in any degree fulfilled. We should be inclined to adopt the knight's account of this transaction, were it not palpably inconsistent with itself. He says, that the two young men were entered in Pembroke on the *same day;* that Corbet continued in the college two years; and yet that Johnson was driven home in little more than *one year*, because by the *removal* of Corbet he was deprived of his pension. A story, of which one part contradicts the other, cannot wholly be true. Sir John adds, that "meeting with another source, the bounty, as it is supposed, of some one or more of the members of the cathedral of Litchfield, he returned to college, and made up the whole of his residence in the university about three years." Mr Boswell has told us nothing but that Johnson, though his father was unable to support him, continued three years in college, and was then driven from it by extreme poverty. Johnson

These gentlemen differ likewise in their accounts of Johnson's tutors. Sir John Hawkins says that he had two, Mr Jordan and Dr Adams. Mr Boswell affirms that Dr Adams *could not* be his tutor, *because* Jordan did not quit the college till 1731; the year in the autumn of which Johnson himself was compelled to leave Oxford. Yet the same author represents Dr Adams as saying, "I was Johnson's *nominal* tutor, but he was above my mark:" a speech of which it is not easy to discover the meaning, if it was not Johnson's duty to attend Adams's lectures. In most colleges we believe there are two tutors in different departments of education; and therefore it is not improbable that Jordan and Adams may have been tutors to Johnson at the same time, the one in languages, the other in science. Jordan was a man of such mean abilities, that though his pupil loved him for the goodness of his heart, he would often risk the payment of a small fine, rather than attend his lectures; nor was he studious to conceal the reason of his absence. Upon occasion of one such imposition, he said, "Sir, you have sconced me twopence for non-attendance at a lecture not worth a penny." For some transgression or absence his tutor imposed upon him as a Christmas exercise the task of translating into Latin verse Pope's *Messiah;* which being shown to the author of the original, was read and returned with this encomium, "The writer of this poem will leave it a question for posterity, whether his or mine be the original." The particular course of his reading while in college, and during the vacation which he passed at home, cannot be traced. That at this period he read much, we have his own evidence in what he afterwards told the king; but his mode of study was never regular, and at all times he thought more than he read. He informed Mr Boswell, that what he read *solidly* at Oxford was Greek, and that the study of which he was most fond was metaphysics.

It was in the year 1731 that Johnson left the university without a degree; and as his father, who died in the month of December of that year, had suffered great misfortunes in trade, he was driven out a commoner of nature, and excluded from the regular modes of profit and prosperity. Having therefore not only a profession but the means of subsistence to seek, he accepted, in the month of March 1732, an invitation to the office of under-master of a free school at Market Bosworth in Leicestershire: but not knowing, as he said, whether it was more disagreeable for him to teach or for the boys to learn the grammar-rules, and being likewise disgusted at the treatment which he received from the patron of the school, he relinquished in a few months a situation which he ever afterwards recollected with horror. Being thus again without any fixed employment, and with very little money in his pocket, he translated Lobo's voyage to Abyssinia, for the trifling sum, it is said, of five guineas, which he received from a bookseller in

Johnson. Birmingham. This was the first attempt which it is certain he made to procure pecuniary assisstance by means of his pen; and it must have held forth very little encouragement to his commencing author by profession.

In 1735, being then in his 26th year, he married Mrs Porter, the widow of a mercer in Birmingham; whose age was almost double his; whose external form, according to Garrick and others, had never been captivating; and whose fortune amounted to hardly 800l. That she had a superiority of understanding and talents, is extremely probable, both because she certainly inspired him with a more than ordinary passion, and because she was herself so delighted with the charms of his conversation as to overlook his external disadvantages, which were many and great. He now set up a private-academy; for which purpose he hired a large house well situated near his native city: but his name having then nothing of that celebrity which afterwards commanded the attention and respect of mankind, this undertaking did not succeed. The only pupils who are known to have been placed under his care, were the celebrated David Garrick, his brother George Garrick, and a young gentleman of fortune whose name was Offely. He kept his academy only a year and a half; and it was during that time that he constructed the plan and wrote a great part of his tragedy of Irene.

The respectable character of his parents and his own merit had secured him a kind reception in the best families at Litchfield; and he was particularly distinguished by Mr Walmsley register of the ecclesiastical court, a man of great worth and of very extensive and various erudition. That gentleman, upon hearing part of Irene read, thought so highly of Johnson's abilities as a dramatic writer, that he advised him by all means to finish the tragedy and produce it on the stage. To men of genius the stage holds forth temptations almost resistless. The profits arising from a tragedy, including the representation and printing of it, and the connections which it sometimes enables the author to form, were in Johnson's imagination inestimable. Flattered, it may be supposed, with these hopes, he set out some time in the year 1737 with his pupil David Garrick for London, leaving Mrs Johnson to take care of the house and the wreck of her fortune. The two adventurers carried with them from Mr Walmsley an earnest recommendation to the reverend Mr Colson, then master of an academy and afterwards Lucasian professor of mathematics in the university of Cambridge; but from that gentleman it does not appear that Johnson found either protection or encouragement.

How he spent his time upon his first going to London is not particularly known. His tragedy was refused by the managers of that day; and for some years the Gentleman's Magazine seems to have been his principal resource for employment and support. To enumerate his various communications to that far-famed miscellany, would extend this article beyond the limits which we can afford. Suffice it to say, that his connection with Cave the proprietor became very close; that he wrote prefaces, essays, reviews of books, and poems; and that he was occasionally employed in correcting the papers written by other correspondents. When the complaints of the nation against the administration of Sir Robert Walpole became loud, and a motion was made, February 13. 1740-1, to remove him from his majesty's counsels for ever, Johnson was pitched upon by Cave to write what was in the Magazine intitled *Debates in the Senate of Lilliput*, but was understood to be the speeches of the most eminent members in both houses of parliament. These orations, which induced *Voltaire* to compare British with ancient eloquence, were hastily sketched by Johnson while he was not yet 32 years old, while he was little acquainted with life, while he was struggling, not for distinction but for existence. Perhaps in none of his writings has he given a more conspicuous proof of a mind prompt and vigorous almost beyond conception: for they were composed from scanty notes taken by illiterate persons employed to attend in both houses; and sometimes he had nothing communicated to him but the names of the several speakers, and the part which they took in the debate. Johnson.

His separate publications which at this time attracted the greatest notice were, "*London*, a Poem in imitation of Juvenal's third Satire;" "*Marmor Norfolciense*, or an Essay on an ancient prophetical Inscription in Monkish Rhyme, lately discovered near Lynne in Norfolk;" and "A complete Vindication of the Licensers of the Stage from the malicious and scandalous aspersions of Mr Brook author of Gustavus Vasa." The poem, which was published in 1738 by Dodsley, is universally known and admired as the most spirited instance in the English language of ancient sentiments adapted to modern topics. Pope, who then filled the poetical throne without a rival, being informed that the author's name was *Johnson*, and that he was an obscure person, replied, "he will soon be *déterré*." The other two pamphlets, which were published in 1739, are filled with keen satire on the government: and though Sir John Hawkins has thought fit to declare that they display neither learning nor wit, Pope was of a different opinion; for in a note of his preserved by Mr Boswell, he says, that "the whole of the Norfolk prophecy is very humorous."

Mrs Johnson, who went to London soon after her husband, now lived sometimes in one place and sometimes in another, sometimes in the city and sometimes at Greenwich: but Johnson himself was oftener to be found at St John's Gate, where the Gentleman's Magazine was published, than in his own lodgings. It was there that he became acquainted with *Savage*, with whom he was induced, probably by the similarity of their circumstances, to contract a very close friendship; and such were their extreme necessities, that they have often wandered whole nights in the street for want of money to procure them a lodging. In one of these nocturnal rambles, when their distress was almost incredible, so far were they from being depressed by their situation, that in high spirits and brimful of patriotism, they traversed St James's Square for several hours; inveighed against the minister; and, as Johnson said in ridicule of himself, his companion, and all such patriots, "resolved that *they* would stand by their country!" In 1744, he published the life of his unfortunate companion; a work which, had he never written any thing else, would have placed him very high

Johnson. high in the rank of authors (A). His narrative is remarkably smooth and well disposed, his observations are just, and his reflections disclose the inmost recesses of the human heart.

In 1749, when Drury-lane theatre was opened under the management of Garrick, Johnson wrote a prologue for the occasion; which for just dramatic criticism on the whole range of the English stage, as well as for poetical excellence, is confessedly unrivalled. But this year is, in his life, distinguished as the epoch when his arduous and important work, the Dictionary of the English Language, was announced to the world by the publication of its plan or prospectus, addressed to the earl of Chesterfield. From that nobleman Johnson was certainly led to expect patronage and encouragement; and it seems to be equally certain that his lordship expected, when the book should be published, to be honoured with the dedication. The expectations of both were disappointed. Lord Chesterfield, after seeing the lexicographer once or twice, suffered him to be repulsed from his door: but afterwards thinking to conciliate him when the work was upon the eve of publication, he wrote two papers in "The World," warmly recommending it to the public. This artifice was seen through; and Johnson, in very polite language, rejected his lordship's advances, letting him know, that he was unwilling the public should consider him as owing to a patron that which Providence had enabled him to do for himself. This great and laborious work its author expected to complete in three years: but he was certainly employed upon it seven; for we know that it was begun in 1747, and the last sheet was sent to the press in the end of the year 1754. When we consider the nature of the undertaking, it is indeed astonishing that it was finished so soon, since it was written, as he says, "with little assistance of the learned, and without any patronage of the great; not in the soft obscurities of retirement, or under the shelter of academic bowers, but amidst inconvenience and distraction, in sickness and in sorrow." The sorrow, to which he here alludes, is probably that which he felt for the loss of his wife, who died on the 17th of March O. S. 1752, the loss of whom he continued to lament as long as he lived.

The Dictionary did not occupy his whole time: for while he was pushing it forward, he fitted his tragedy for the stage; wrote the lives of several eminent men for the Gentleman's Magazine; published an Imitation of the 10th Satire of Juvenal, entitled "The Vanity of human Wishes;" and began and finished "The Rambler." This last work is so well known, that it is hardly necessary to say that it was a periodical paper, published twice a-week, from the 20th of March 1750 to the 14th of March 1752 inclusive: but to give our readers some notion of the vigour and promptitude of the author's mind, it may not be improper to observe, that notwithstanding the severity of his other labours, all the assistance which he received does not amount to five papers; and that many of the most masterly of those unequalled essays were written on the spur of the occasion, and never seen entire by the author till they returned to him from the press. Johnson.

Soon after the Rambler was concluded, Dr Hawkesworth projected "The Adventurer" upon a similar plan; and by the assistance of friends he was enabled to carry it on with almost equal merit. For a short time, indeed, it was the most popular work of the two; and the papers with the signature T, which are confessedly the most splendid in the whole collection, are now known to have been communicated by Johnson, who received for each the sum of two guineas. This was double the price for which he sold sermons to such clergymen as either would not or could not compose their own discourses; and of sermon-writing he seems to have made a kind of trade.

Though he had exhausted, during the time that he was employed on the Dictionary, more than the sum for which the booksellers had bargained for the copy; yet by means of the Rambler, Adventurer, sermons, and other productions of his pen, he now found himself in greater affluence than he had ever been before; and as the powers of his mind, distended by long and severe exercise, required relaxation to restore them to their proper tone, he appears to have done little or nothing from the closing of the Adventurer till the year 1756, when he submitted to the office of reviewer in the Literary Magazine. Of his reviews by far the most valuable is that of Soame Jennyns's "Free Inquiry into the Nature and Origin of Evil." Never were wit and metaphysical acuteness more closely united than in that criticism, which exposes the weakness and holds up to contempt the reasonings of those vain mortals, who presumptuously attempt to grasp the scale of existence, and to form plans of conduct for the Creator of the universe. But the furnishing of magazines, reviews, and even newspapers with literary intelligence, and authors of books with dedications and prefaces, was considered as an employment unworthy of Johnson. It was therefore proposed by the booksellers that he should give a new edition of the dramas of Shakespeare; a work which he had projected many years before, and of which he had published a specimen which was commended by Warburton. When one of his friends expressed a hope that this employment would furnish him with amusement and add to his fame, he replied, "I look upon it as I did upon the Dictionary; it is all work; and my inducement to it is not love or desire of fame, but the want of money, which is the only motive to writing that I know of." He issued proposals, however, of considerable length; in which he showed that he knew perfectly what a variety of research such an undertaking required: but his indolence prevented him from pursuing it with diligence, and it was not published till many years afterwards.

On the 15th of April 1785 he began a new periodical paper entitled "The Idler," which came out every Saturday

(A) From the merit of this work Mr Boswell has endeavoured to detract, by insinuating, that the person called *Richard Savage* was an impostor, and not the son of the earl of Rivers and the countess of Macclesfield. The moral character of Savage was undoubtedly unworthy of such a biographer; and it may be fairly questioned whether his intellectual or poetical character at all entitled him to such respectable notice.

Johnson. Saturday in a weekly newspaper, called "the Universal Chronicle, or Weekly Gazette," published by *Newberry*. Of these essays, which were continued till the 5th of April 1760, many were written as hastily as an ordinary letter; and one in particular composed at Oxford was begun only half an hour before the departure of the post which carried it to London. About this time he had the offer of a living, of which he might have rendered himself capable by entering into orders. It was a rectory in a pleasant country, of such yearly value as would have been an object to one in much better circumstances; but sensible, as it is supposed, of the asperity of his temper, he declined it, saying, "I have not the requisites for the office, and I cannot in my conscience shear the flock which I am unable to feed."

In the month of January 1759 his mother died at the great age of 90; an event which deeply affected him, and gave birth to the 41st Idler, in which he laments, that "the life which made his own life pleasant was at an end, and that the gate of death was shut upon his prospects." Soon afterwads he wrote his "Rasselas Prince of Abyssinia; that with the profits he might defray the expence of his mother's funeral, and pay some debts which she had left. He told a friend, that he received for the copy 100l. and 25l. more when it came to a second edition; that he wrote it in the evenings of one week, sent it to the press in portions as it was written, and had never since read it over.

Hitherto, notwithstanding his various publications, he was poor, and obliged to provide by his labour for the wants of the day that was passing over him; but having been early in 1762 represented to the king as a very learned and good man without any certain provision, his majesty was pleased to grant him a pension, which Lord Bute, then first minister, assured him "was not given for any thing which he *was to do*, but for what he *had already done*." A fixed annuity of three hundred pounds, if it diminished his distress, increased his indolence; for as he constantly avowed that he had no other motive for writing than to gain money, as he had now what was abundantly sufficient for all his purposes, as he delighted in conversation, and was visited and admired by the witty, the elegant, and the learned, very little of his time was past in solitary study. Solitude was indeed his aversion; and that he might avoid it as much as possible, Sir Joshua Reynolds and he, in 1764, instituted a club, which existed long without a name, but was afterwards known by the title of the *Literary Club*. It consisted of some of the most enlightened men of the age, who met at the Turk's Head in Gerard-street, Soho, one evening in every week at seven, and till a late hour enjoyed "the feast of reason and the flow of soul."

In 1765, when Johnson was more than usually oppressed with constitutional melancholy, he was fortunately introduced into the family of Mr Thrale, one of the most eminent brewers in England, and member of parliament for the borough of Southwark: and it is but justice to acknowledge, that to the assistance which Mr and Mrs Thrale gave him, to the shelter which their house afforded him for 16 or 17 years, and to the pains which they took to soothe or repress his uneasy fancies, the public is probably indebted for some of the most masterly as well as the most popular works which he ever produced. At length, in the October of this year, he gave to the world his edition of Shakespeare, which is chiefly valuable for the preface, where the excellencies and defects of that immortal bard are displayed with such judgment, as must please every man whose taste is not regulated by the standard of fashion or national prejudice. In 1767 he was honoured by a private conversation with the king in the library at the queen's house: and two years afterwards, upon the establishment of the royal academy of painting, sculpture, &c. he was nominated professor of ancient literature; an office merely honorary, and conferred on him, as is supposed, at the recommendation of his friend the president. Johnson.

In the variety of subjects on which he had hitherto exercised his pen, he had forborne, since the administration of Sir Robert Walpole, to meddle with the disputes of contending factions; but having seen with indignation the methods which, in the business of Mr Wilkes, were taken to work upon the populace, he published in 1770 a pamphlet, entitled "The False Alarm;" in which he asserts, and labours to prove by a variety of arguments founded on precedents, that the expulsion of a member of the house of commons is equivalent to exclusion, and that no such calamity as the subversion of the constitution was to be feared from an act warranted by usage, which is the law of parliament. Whatever may be thought of the principles maintained in this publication, it unquestionably contains much wit and much argument, expressed in the author's best style of composition; and yet it is known to have been written between eight o'clock on Wednesday night and twelve o'clock on the Thursday night, when it was read to Mr Thrale upon his coming from the house of commons. In 1771 he published another political pamphlet, entitled, "Thoughts on the late transactions respecting Falkland's islands;" in which he attacked *Junius:* and he ever afterwards delighted himself with the thought of having destroyed that able writer, whom he certainly surpassed in nervous language and pointed ridicule.

In 1773 he visited with Mr Boswell some of the most considerable of the Hebrides or Western Islands of Scotland, and published an account of his journey in a volume which abounds in extensive philosophical views of society, ingenious sentiments, and lively description, but which offended many persons by the violent attack which it made on the authenticity of the poems attributed to Ossian. For the degree of offence that was taken, the book can hardly be thought to contain a sufficient reason: if the antiquity of these poems be yet doubted, it is owing more to the conduct of their editor than to the violence of Johnson. In 1774, the parliament being dissolved, he addressed to the electors of Great Britain a pamphlet, entitled "The Patriot;" of which the design was to guard them from imposition, and teach them to distinguish true from false patriotism. In 1775 he published "Taxation no tyranny; in answer to the resolutions and address of the American Congress." In this performance his admirer Mr Boswell cannot, he says, perceive that ability of argument or that felicity of expression for which on other occasions Johnson was so eminent. This is a singular criticism. To the assumed

principle

Johnson. principle upon which the reasoning of the pamphlet rests many have objected, and perhaps their objections are well founded; but if it be admitted that "the supreme power of every community has the right of requiring from all its subjects such contributions as are necessary to the public safety or public prosperity," it will be found a very difficult task to break the chain of arguments by which it is proved that the British parliament had a right to tax the Americans. As to the *expression* of the pamphlet, the reader, who adopts the maxim recorded in the "Journal of a tour to the Hebrides," that a controvertist "ought not to strike soft in battle," must acknowledge that it is uncommonly happy, and that the whole performance is one of the most brilliant as well as most correct pieces of composition that ever fell from the pen of its author. These essays drew upon him numerous attacks, all of which he heartily despised; for though it has been supposed that "A letter addressed to Dr Samuel Johnson occasioned by his political publications," gave him great uneasiness, the contrary is manifest, from his having, after the appearance of that letter, collected them into a volume with the title of "Political Tracts by the author of the Rambler." In 1765 Trinity College Dublin had created him LL. D. by *diploma*, and he now received the same honour from the university of Oxford; an honour with which, though he did not boast of it, he was highly gratified. In 1777 he was induced, by a case of a very extraordinary nature, to exercise that humanity which in him was obedient to every call. Dr William Dodd, a clergymen, under sentence of death for the crime of forgery, found means to interest Johnson in his behalf, and procured from him two of the most energetic compositions of the kind ever seen; the one a petition from himself to the king, the other a like address from his wife to the queen. These petitions failed of success.

The principal booksellers in London having determined to publish a body of English poetry, Johnson was prevailed upon to write the lives of the poets, and give a character of the works of each. This task he undertook with alacrity, and executed it in such a manner as must convince every competent reader, that as a biographer and a critic, no nation can produce his equal. The work was published in ten small volumes, of which the first four came abroad 1778, and the others in 1781. While the world in general was filled with admiration of the stupendous powers of that man who at the age of seventy-two, and labouring under a complication of diseases, could produce a work which displays so much genius and so much learning, there were narrow circles in which prejudice and resentment were fostered, and whence attacks of different sorts issued against him. These gave him not the smallest disturbance. When told of the feeble, though shrill, outcry that had been raised, he said,—"Sir, I considered myself as intrusted with a certain portion of truth. I have given my opinion sincerely: let them show where they think me wrong."

He had hardly begun to reap the laurels gained by this performance, when death deprived him of Mr Thrale, in whose house he had enjoyed the most comfortable hours of his life; but it abated not in Johnson that care for the interests of those whom his friend had left behind him, which he thought himself bound Johnson. to cherish, both in duty as one of the executors of his will, and from the nobler principle of gratitude. On this account, his visits to Streatham, Mr Thrale's villa, were for some time after his death regularly made on Monday and protracted till Saturday, as they had been during his life; but they soon became less and less frequent, and he studiously avoided the mention of the place or the family. Mrs Thrale, now Piozzi, says indeed, that "it grew extremely perplexing and difficult to live in the house with him when the master of it was no more; because his dislikes grew capricious, and he could scarce bear to have any body come to the house whom it was absolutely necessary for her to see." The person whom she thought it most necessary for her to see may perhaps be guessed at without any superior share of sagacity; and if these were the visits which Johnson could not bear, we are so far from thinking his dislikes capricious, though they may have been perplexing, that if he had acted otherwise, we should have blamed him for want of gratitude to the friend whose "face for fifteen years had never been turned upon him but with respect or benignity."

About the middle of June 1783 his constitution sustained a severer shock than it had ever before felt, by a stroke of the palsy; so sudden and so violent, that it awakened him out of a sound sleep, and rendered him for a short time speechless. As usual, his recourse under this affliction was to piety, which in him was constant, sincere, and fervent. He tried to repeat the Lord's prayer first in English, then in Latin, and afterwards in Greek; but succeeded only in the last attempt; immediately after which he was again deprived of the power of articulation. From this alarming attack he recovered with wonderful quickness, but it left behind it some presages of an hydropic affection; and he was soon afterwards seized with a spasmodic asthma of such violence that he was confined to the house in great pain, while his dropsy increased, notwithstanding all the efforts of the most eminent physicians in London and Edinburgh. He had, however, such an interval of ease as enabled him in the summer 1784 to visit his friends at Oxford, Litchfield, and Ashbourne in Derbyshire. The Romish religion being introduced one day as the topic of conversation when he was in the house of Dr Adams, Johnson said, "If you join the Papists externally, they will not interrogate you strictly as to your belief in their tenets. No reasoning Papist believes every article of their faith. There is one side on which a good man might be persuaded to embrace it. A good man of a timorous disposition, in great doubt of his acceptance with God, and pretty credulous, might be glad of a church where there are so many helps to go to heaven. I would be a Papist if I could. I have fear enough; but an obstinate rationality prevents me. I should never be a Papist unless on the near approach of death, of which I have very great terror."

His constant dread of death was indeed so great, that it astonished all who had access to know the piety of his mind and the virtues of his life. Attempts have been made to account for it in various ways; but doubtless that is the true account which is given in the *Olla Podrida*, by an elegant and pious writer, who now adorns a high station in the church of England. "That he should

Johnson. should not be conscious of the abilities with which Providence had blessed him was impossible. He felt his own powers: he felt what he was capable of having performed; and he saw how little, comparatively speaking, he had performed. Hence his apprehension on the near prospect of the account to be made, viewed through the medium of constitutional and morbid melancholy, which often excluded from his sight the bright beams of divine mercy." This, however, was the case only while death was approaching from some distance. From the time that he was certain it was near, all his fears were calmed; and he died on the 13th of December 1784, full of resignation, strengthened by faith, and joyful in hope.

For a just character of this great man our limits afford not room: we must therefore content ourselves with laying before our readers a very short sketch. His stature was tall, his limbs were large, his strength was more than common, and his activity in early life had been greater than such a form gave reason to expect: but he was subject to an infirmity of the convulsive kind, resembling the distemper called St Vitus's dance; and he had the seeds of so many diseases sown in his constitution, that a short time before his death he declared that he hardly remembered to have passed one day wholly free from pain. He possessed very extraordinary powers of understanding; which were much cultivated by reading, and still more by meditation and reflection. His memory wrs remarkably retentive, his imagination uncommonly vigorous, and his judgement keen and penetrating. He read with great rapidity, retained with wonderful exactness what he so easily collected, and possessed the power of reducing to order and system the scattered hints on any subject which he had gathered from different books. It would not perhaps be safe to claim for him the highest place, among his contemporaries, in any *single* department of literature; but, to use one of his own expressions, he brought more *mind* to every subject, and had a greater variety of knowledge *ready* for all occasions, than any other man that could be easily named.—Though prone to superstition, he was in all other respects so remarkably incredulous, that Hogarth said while Johnson firmly believed the Bible, he seemed determined to believe nothing but the Bible. Of the importance of religion he had a strong sense, and his zeal for its interests was always awake, so that profaneness of every kind was abashed in his presence.—The same energy which was displayed in his literary productions, was exhibited also in his conversation, which was various, striking, and instructive: like the sage in Rasselas, he spoke, and attention watched his lips; he reasoned, and conviction closed his periods: when he pleased, he could be the greatest sophist that ever contended in the lists of declamation; and perhaps no man ever equalled him in nervous and pointed repartees. His veracity, from the most trivial to the most solemn occasions, was strict even to severity: he scorned to embellish a story with fictitious circumstances; for what is not a representation of reality, he used to say, is not worthy of our attention. As his purse and his house were ever open to the indigent, so was his heart tender to those who wanted relief, and his soul was susceptible of gratitude and every kind impression. He had a roughness in his manner which subdued the saucy and terrified the meek: but it was *only* in his *manner;* for no man was more loved than Johnson was by those who knew him; and his works will be read with veneration for their author as long as the language in which they are written shall be understood. Johnson. Johnston.

JOHNSTON, Dr Arthur, was born at Caskieben, near Aberdeen, the seat of his ancestors, and probably was educated at Aberdeen, as he was afterwards advanced to the highest dignity in that university. The study he chiefly applied himself to was that of physic; and to improve himself in that science, he travelled into foreign parts. He was twice at Rome; but the chief place of his residence was Padua, in which university the degree of M. D. was conferred on him in 1610, as appears by a MS. copy of verses in the advocate's library in Edinburgh. After leaving Padua, he travelled through the rest of Italy, and over Germany, Denmark, England, Holland, and other countries; and at length settled in France; where he met with great applause as a Latin poet. He lived there 20 years, and by two wives had 13 children. After 24 years absence, he returned into Scotland in 1632. It appears by the council books at Edinburgh, that the doctor had a suit at law before that court about that time. In the year following, it is very well known that Charles I. went into Scotland, and made Bishop Laud, then with him, a member of that council: and by this accident, it is probable, that acquaintance began between the doctor and that prelate, which produced his "Psalmorum Davidis Paraphrasum Poetica;" for we find that, in the same year, the doctor printed a specimen of his Psalms at London, and dedicated them to this lordship.

He proceeded to perfect the whole, which took him up four years; and the first edition complete was published at Aberdeen in 1637, and at London the same year. In 1641, Dr Johnston being at Oxford, on a visit to one of his daughters who was married to a divine of the church of England in that place, was seized with a violent diarrhœa, of which he died in a few days, in the 54th year of his age, not without having seen the beginning of those troubles that proved too fatal to his patron. He was buried in the place where he died; which gave occasion to the following lines of his learned friend Wedderburn in his *Suspiria* on the doctor's death:

Scotia mœsta, dole, tanti viduata sepulchro
Vatis: is Angligenis contigit altus honos.

In what year Dr Johnston was made physician to the king does not appear: it is most likely that the archbishop procured him that honour at his coming into England in 1633, at which time he translated Solomon's Song into Latin elegiac verse, and dedicated it to his majesty. His Psalms were reprinted at Middleburgh, 1642; London, 1657; Cambridge,.....; Amsterdam, 1706; Edinburgh, by William Lauder, 1739; and last on the plan of the Delphin classics, at London, 1741, 8vo, at the expence of Auditor Benson, who dedicated them to his late majesty, and prefixed to this edition memoirs of Dr Johnston, with the testimonies of various learned persons. A laboured comparison between the two translations of Buchanan and Johnston was printed the same year in English,

Johnston || Iolaia.

in 8vo, entitled, A Prefatory Discourse to Dr Johnston's Psalms, &c. and A Conclusion to it. His translations of the Te Deum, Creed, Decalogue, &c. were subjoined to the Psalms. His other poetical works are his Epigrams; his *Parerga:* and his *Musæ Anglicæ*, or commendatory Verses upon persons of rank in church and state at that time.

JOIGNY, a town of France, in Champagne, and in the diocese of Sens, with a very handsome castle. It consists of three parishes, and is pleasantly situated on the river Yonne, in E. Long. 3. 25. N. Lat. 47. 56. Population 5400.

JOINERY, the art of working in wood, or of fitting various pieces of timber together. It is called by the French *menuiserie*, "small work," to distinguish it from carpentry, which is employed about large and less curious works. See JOINERY, SUPPLEMENT.

JOINT, in general, denotes the juncture of two or more things. The joints of the human body are called by anatomists *articulations*. See ANATOMY, N° 2.

The suppleness to which the joints may be brought by long practice from the time of infancy, is very surprising. Every common posture-master shows us a great deal of this; but one of the most wonderful instances we ever had of it, was in a person of the name of *Clark*, and famous for it in London, where he was commonly known by the name of *Clark the posture-master*. This man had found the way by long practice, to distort many of the bones, of which nobody before had ever thought it possible to alter the position. He had such an absolute command of his muscles and joints, that he could almost disjoint his whole body: so that he once imposed on the famous Mullens by his distortions, in such a manner, that he refused to undertake his cure: but, to the amazement of the physician, no sooner had he given over his patient, than he saw him restore himself to the figure and condition of a proper man, with no distortion about him.

JOINTURE, in *Law*, generally signifies a settlement of lands and tenements, made on a woman in consideration of marriage.

JOINVILLE, an ancient and considerable town of France, in Champagne, with the title of a principality, and a large magnificent castle. It is situated on the river Marne, in E. Long. 5. 10. N. Lat. 48. 20.

JOISTS, or JOYSTS, in *Architecture*, those pieces of timber framed into the girders and summers, on which the boards of the floor are laid.

JOKES. See JESTING.

IOLAIA, a festival at Thebes, the same as that called *Heracleia*. It was instituted in honour of Hercules and his friend Iolas, who assisted him in conquering the hydra. It continued during several days, on the first of which were offered solemn sacrifices. The next day horse-races and athletic exercises were exhibited. The following day was set apart for wrestling; the victors were crowned with garlands of myrtle generally used at funeral solemnities. They were sometimes rewarded with tripods of brass. The place where the exercises were exhibited was called *Iolaion*; where there were to be seen the monument of Amphitryon and the cenotaph of Iolas, who was buried in Sardinia. These monuments were strewed with garlands and flowers on the day of the festival.

IŎLAS or IOLAUS, in *Fabulous History*, a son of Iphiclus king of Thessaly, who assisted Hercules in conquering the hydra, and burnt with a hot iron the place where the heads had been cut off, to prevent the growth of others. He was restored to his youth and vigour by Hebe, at the request of his friend Hercules. Some time afterwards Iolas assisted the Heraclidæ against Eurystheus, and killed the tyrant with his own hand. According to Plutarch, Iolas had a monument in Bœotia and Phocis, where lovers used to go and bind themselves by the most solemn oaths of fidelity, considering the place as sacred to love and friendship. According to Diodorus and Pausanias, Iolas died and was buried in Sardinia, where he had gone to make a settlement at the head of the sons of Hercules by the 50 daughters of Thespius.

Iolas || Iona.

JOLLOXOCHITL, an Indian word, signifying *flower of the heart*, is the name of a plant which bears a large beautiful flower, growing in Mexico, where it is much esteemed for its beauty and odour; which latter is so powerful, that a single flower is sufficient to fill a whole house with the most pleasing fragrance.

ION, in *Fabulous History*, a son of Xuthus and Creusa daughter of Erechtheus, who married Helice, the daughter of Selinus king of Ægiale. He succeeded to the throne of his father-in-law; and built a city, which he called *Helice* on account of his wife. His subjects from him received the name of *Ionians*, and the country that of *Ionia*. See IONIA.

ION, a tragic poet of Chios, who flourished about the 82d Olympiad. His tragedies were represented at Athens, where they met with universal applause. He is mentioned and greatly recommended by Aristophanes and Athenæus, &c.

IONA, JONA, or ICOLMKILL, one of the Hebrides; a small, but celebrated island, "once the *luminary* of the Caledonian regions (as Dr Johnson expresses it), whence savage clans and roving barbarians derived the benefits of knowledge and the blessings of religion." The name *Iona* is derived from a Hebrew word signifying a *dove*, in allusion to his patron Columba, who landed here in 565. See COLUMBA.—It is said to have been a seat of the druids before his arrival, when its name in Irish was *Inis Drunish*, or the "Druid Island." The druids being expelled or converted, he founded here a cell of canons regular, who till 716 differed from the church of Rome, in the observance of Easter and in the tonsure. After his death, the island retained his name, and was called *Icolumb cill* or "Columb's cell," now *Icolmkill*. The Danes dislodged the monks in the 7th century, and Cluniacs were the next order that settled here.

This island, which belongs to the parish of Ross in Mull, is three miles long, and one broad: the east side is mostly flat: the middle rises into small hills; and the west side is very rude and rocky: the whole forming a singular mixture of rock and fertility.—There is in the island only one town, or rather village, consisting of about 60 mean houses. The population in 1798 amounted to about 330. Near the town is the bay of Martyrs slain by the Danes. An oblong inclosure, bounded by a stone dyke, and called *Clachnan Druinach*, in which bones have been found, is supposed to have been a burial-place of the Druids or rather the common cemetery of the towns-people. Beyond the

Iona. the town are the ruins of the nunnery of Austin canonesses, dedicated to St Oran, and said to be founded by Columba: the church was 58 feet by 20, and the east roof is entire. On the floor, covered deep with cow-dung, is the tomb of the last prioress, with her figure praying to the Virgin Mary, and this inscription on the ledge: *Hic jacet domina Anna Donaldi Ferleti filia, quondam prioressa de Jona, quæ obiit an'o m° d° xi^mo cjus animam Altissimo commendamus;* and another inscribed, *Hic jacet Mariota filia Johan: Lauchlain domini de.....* A broad paved way leads hence to the cathedral; and on this way is a large handsome cross called *Maclean's*, the only one that remains of 360, which were demolished here at the Reformation. Reilig Ouran, or the burying-place of Oran, is the large inclosure where the kings of Scotland, Ireland, and of the isles, and their descendants, were buried in three several chapels. The dean of the isles, who travelled over them 1549, and whose account has been copied by Buchanan, and published at Edinburgh 1784, says, that in his time on one of these chapels (or "tombes of stain formit like little chapels with ane braid gray marble or quhin stain on the gavil of ilk ane of the tombes," containing, as the chronicle says, the remains of 48 Scotch monarchs, from Fergus II. to Macbeth, 16 of whom were pretended to be of the race of Alpin) was inscribed, *Tumulus regum Scotiæ.* The next was inscribed, *Tumulus regum Hiberniæ*, and contained four Irish monarchs: and the third, inscribed *Tumulus regum Norwegiæ*, containing eight Norwegian princes, or viceroys of the Hebrides while they were subject to the crown of Norway. Boetius says, that Fergus founded this abbey for the burial-place of his successors, and caused an office to be composed for the funeral ceremony. All that Mr Pennant could discover here were only certain slight remains, built in a ridged form and arched within, but the inscriptions lost. These were called *Jornaire nan righ*, or "the ridge of the kings." Among these stones are to be seen only these two inscriptions in the Gaelic or Erse language and ancient Irish characters: *Cros Domhail fat'asich*, i. e. "the cross of Donald Longshanks," and that of *Urchvine o Guin;* and another inscribed *Hic jacet priores de Hy, Johannes, Hugenius, Patricius, in decretis olim bacularius, qui obiit an. Dom. milles^mo quingentesimo.* About 300 inscriptions were collected here by Mr Sacheverel in 1688 and given to the earl of Argyle, but afterwards lost in the troubles of the family. The place is in a manner filled with grave-stones, but so overgrown with weeds, that few or none are at present to be seen, far less any inscriptions read. Here also stands the chapel of St Oran, the first building begun by Columba, which the evil spirits would not suffer to stand till some human victim was buried alive; for which service Oran offered himself, and his red grave-stone is near the door. In this chapel are tombs of several chiefs, &c. A little north-west of the door is the pedestal of a cross: on it are certain stones that seem to have been the supports of a tomb. Numbers who visit this island think it incumbent on them to turn each of these thrice round, according to the course of the sun. They are called *Clacha-brath;* for it is thought that the *brath*, or end of the world, will not arrive till the pedestal on which they stand is worn through. Originally (says Mr Sacheverel) here were three noble globes of white marble, placed on three stone basons, and these were turned round; but the synod ordered them and 60 crosses to be thrown into the sea. The present stones are probably substituted in place of these globes. The precinct of these tombs was held sacred, and enjoyed the privileges of a girth or sanctuary. These places of retreat were by the ancient Scotch law, not to shelter indiscriminately every offender, as was the case in more bigotted times in Catholic countries; for here all atrocious criminals were excluded; and only the unfortunate delinquent, or the penitent sinner, was shielded from the instant stroke of rigorous justice. A little to the north of this inclosure stands the cathedral, built in form of a cross, 115 feet long by 23, the transept 70 feet: the pillars of the choir have their capitals charged with scripture and other histories; and near the altar are the tombs of two abbots and a knight. A fragment remains of the altar-stone of white marble veined with gray. This church is ascribed to Maldwin in the seventh century; but the present structure is far too magnificent for that age. Most of the walls are built of red granite from the Nun's island in the sound. Two parallel walls of a covered way about 12 feet high and 10 wide, reach from the south-east corner to the sea. In the churchyard is a fine cross of a single piece of red granite, 14 feet high, 22 inches broad, and 10 inches thick. Near the south-east end is Mary's chapel. The monastery is behind the chapel; of which only a piece of the cloisters remains, and some sacred black stones in a corner, on which contracts and alliances were made and oaths sworn. East of it was the abbot's gardens and offices. North of this was the palace of the bishop of the isles after the separation of Man from them. This see was endowed with 13 islands; several of which were frequently taken away by the chieftains. The title of *Soder*, which some explained *Soter*, Σωτηρ, "the name of Christ, or Soder, an imaginary town," is really derived from the distinction of the diocese into the northern islands or Nordereys (i. e. all to the north of Ardnamurchan point), and the Southern or Sudereys; which last being the most important, the isle of Man retained both titles. Iona.

Other ruins of monastic buildings and offices may be traced, as well as some druidical sepulchral remains. Several abbeys were derived from this, which with the island was governed by an abbot-presbyter, who had rule even over bishops. The place where Columba landed is a pebbly beach, where a heap of earth represents the form of his ship. Near it is a hill with a circle of stones called *Cnoc-nan aimgeal*, or "the hill of angels," with whom the saint held conference; and on Michaelmas day the inhabitants coursed their horses round it, a remain of the custom of bringing them there to be blessed. In former times, this island was the place where the archives of Scotland and many valuable old manuscripts were kept. Of these most are supposed to have been destroyed at the Reformation; but many, it is said, were carried to the Scotch college at Douay in France, and it is hoped some of them may still be recovered. In the island of Iona a schoolmaster is established; but there is no temple for worship, no instructor in religion, excepting the schoolmaster, unless it is visited by the parish minister from another island.

Jonah & Jones.

JONAH, or *Prophecy of Jonah*, a canonical book of the Old Testament; in which it is related, that Jonah (about 771 B. C.) was ordered to go and prophecy the destruction of the Ninevites, on account of their wickedness. But the prophet, instead of obeying the divine command, embarked for Tarshish; when, a tempest arising, the mariners threw him into the sea: he was swallowed by a great fish; and after being three days and nights in his belly, was cast upon the land. Hereupon being sensible of his past danger and surprising deliverance, he betook himself to the journey and embassy to which he was appointed; and arriving at Nineveh the metropolis of Assyria, he, according to his commission, boldly laid open their sins and miscarriages, and proclaimed their sudden overthrow: upon which the whole city, by prayer and fasting, and a speedy repentance, happily averted the divine vengeance, and escaped the threatened ruin. Jonah upon this, fearing to pass for a false prophet, retired to a hill at some distance from the city; where God, by a miracle, condescended to show him the unreasonableness of his discontent.

JONATHAN, the son of Saul, celebrated in sacred history for his valour, and his friendship for David against the interest of his own house. Slain in battle 1055 B. C.

Jonathan Maccabæus, brother of Judas, a renowned general of the Jews. He forced Bacchides the Syrian general, who made war with the Jews, to accept a peace; conquered Demetrius Soter, and afterwards Apollonius, that prince's general; but, being ensnared by Tryphon, was put to death 144 B. C.

JONES, Inigo, a celebrated English architect, was the son of a cloth-worker of London, and was born in 1572. He was at first put apprentice to a joiner; but early distinguished himself by his inclination to drawing or designing, and was particularly taken notice of for his skill in landscape-painting. This afterwards recommended him to the favour of William earl of Pembroke, who sent him abroad with a handsome allowance in order to perfect himself in that branch. He was no sooner at Rome, than he found himself in his proper sphere: he felt that nature had not formed him to decorate cabinets, but to design palaces. He dropt the pencil and conceived Whitehall. In the state of Venice he saw the works of Palladio, and learned how beautiful taste may be exerted on a less theatre than the capital of an empire. How his abilities distinguished themselves in a spot where they certainly had no opportunity to act, we are not told, though it would not be the least curious part of his history; certain it is, that, on the strength of his reputation at Venice, Christian IV. invited him to Denmark, and appointed him his architect; but on what buildings he was employed in that country, we are yet to learn. James I. found him at Copenhagen, and Queen Anne took him in the quality of her architect to Scotland. He served Prince Henry in the same capacity, and the place of surveyor-general of the works was granted to him in reversion. On the death of that prince, with whom at least all his lamented qualities did not die, Jones travelled once more into Italy, and, assisted by ripeness of judgment, perfected his taste. To the interval between these voyages Mr Walpole is inclined to assign those buildings of Inigo, which are less pure, and border too much upon the bastard style, which one may call *King James's Gothic*. Jones. Inigo's designs of that period are not Gothic, but have a littleness of parts, and a weight of ornaments, with which the revival of the Grecian taste was encumbered, and which he shook off in his grander designs. The surveyor's place fell, and he returned to England; and, as if architecture was not all he had learned at Rome, with an air of Roman disinterestedness he gave up the profits of his office, which he found extremely in debt; and prevailed upon the comptroller and paymaster to imitate his example, till the whole arrears were cleared.

In 1620, he was employed in a manner very unworthy of his genius: King James set him upon discovering, that is, guessing, who were the founders of Stonehenge. His ideas were all Romanised; consequently, his partiality to his favourite people, which ought rather to have prevented him from charging them with that mass of barbarous clumsiness, made him conclude it a Roman temple.

In the same year Jones was appointed one of the commissioners for the repair of St Paul's; but which was not commenced till the year 1633, when Laud, then bishop of London, laid the first stone, and Inigo the fourth. In the restoration of that cathedral, he made two capital faults. He first renewed the sides with very bad Gothic; and then added a Roman portico, magnificent and beautiful indeed, but which had no affinity with the ancient parts that remained, and made his own Gothic appear ten times heavier. He committed the same error at Winchester, thrusting a screen in the Roman or Grecian taste into the middle of that cathedral. Jones indeed was by no means successful when he attempted Gothic. The chapel of Lincoln's-Inn has none of the characteristics of that architecture. The cloister beneath seems oppressed by the weight of the building above.

The authors of the life of Jones place the erecting of the Banqueting-house in the reign of King Charles; but it appears, from the accounts of Nicholas Stone, that it was begun in 1619, and finished in two years—a small part of the pile designed for the palace of our kings; but so complete in itself, that it stands a model of the most pure and beautiful taste. Several plates of the intended palace at Whitehall have been given; but Mr Walpole thinks, from no finished design. The four great sheets are evidently made up from general hints; nor could such a source of invention and taste as the mind of Inigo ever produce so much sameness. The whole fabric, however, was so glorious an idea, that one forgets for a moment (says Mr Walpole), in the regret for its not being executed, the confirmation of our liberties, obtained by a melancholy scene that passed before the windows of that very Banqueting-house.

In 1623 he was employed at Somerset-house, where a chapel was to be fitted up for the Infanta, the intended bride of the prince. The chapel is still in being. The front to the river, part only of what was designed, and the water-gate, were erected afterwards on the designs of Inigo, as was the gate at York-stairs.

On the accession of Charles, Jones was continued in

Jones. his posts under both king and queen. His fee as surveyor was 8s. 4d. a day, with an allowance of 46l. a year for house-rent, besides a clerk, and incidental expences. What greater rewards he had, are not upon record.

During the prosperous state of the king's affairs, the pleasures of the court were carried on with much taste and magnificence. Poetry, painting, music, and architecture, were all called in to make them rational amusements. Mr Walpole is of opinion, that the celebrated festivals of Louis XIV. were copied from the shows exhibited at Whitehall, in his time the most polite court in Europe. Ben Johnson was the laureat; Inigo Jones the inventor of the decorations; Laniere and Ferabosco composed the symphonies; the king, the queen, and the young nobility, danced in the interludes. We have accounts of many of those entertainments, called *masques;* they had been introduced by Anne of Denmark. Lord Burlington had a folio of the designs for these solemnities, by Inigo's own hand, consisting of habits, masks, scenes, &c. The harmony of these masks was a little interrupted by a war that broke out between the composers, Inigo and Ben, in which whoever was the aggressor, the turbulent temper of Johnson took care to be most in the wrong.

The works of Inigo Jones are not scarce; Surgeon's hall is one of his best works. One of the most admired is the arcade of Covent-garden, and the church: "Two structures (says Mr Walpole), of which I want taste to see the beauties. In the arcade there is nothing remarkable: the pilasters are as arrant and homely stripes as any plasterer would make. The barn-roof over the portico of the church strikes my eyes with as little idea of dignity and beauty, as it could do if it covered nothing but a barn. It must be owned, that the defect is not in the architect, but in the order.—Who ever saw a beautiful Tuscan building? Would the Romans have chosen that order for a temple?" The expence of building that church was 4500l.

Ambresbury in Wiltshire was designed by Jones, but executed by his scholar Webb. Jones was one of the first that observed the same diminution of pilasters as in pillars. Lindsay-house in Lincolns-Inn Fields, which he built, owes its chief grace to this singularity. In 1618, a special commission was issued to the lord-chancellor, the earls of Worcester, Pembroke, Arundel, and others, to plant and reduce to uniformity, Lincoln's-Inn Fields, as it shall be drawn by way of map or ground-plot, by Inigo Jones, surveyor-general of the works. That square is laid out with a regard to so trifling a singularity, as to be of the exact dimensions of one of the pyramids: this would have been admired in those ages when the keep at Kenelworth Castle was erected in the form of an horse-fetter, and the Escurial in the shape of St Laurence's gridiron.

Coleshill in Berkshire, the seat of Sir Matthew Pleydell, built in 1650, and Cobham-hall in Kent, were Jones's. He was employed to rebuild Castle Ashby, and finished one front: but the civil war interrupted his progress there and at Stoke-park in Northamptonshire. Shaftsbury-house, now the London Lying-in hospital, on the east side of Aldersgate-street, is a beautiful front. The Grange, the seat of the lord chancellor Henley in Hampshire, is entirely of this master. It is not a large house, but by far one of the best proofs of his taste. The hall, which opens to a small vestibule with a cupola, and the staircase adjoining, are beautiful models of the purest and most classic antiquity. The gate of Beaufort-garden at Chelsea, designed by Jones, was purchased by Lord Burlington, and transported to Chiswick. He drew a plan for a palace at Newmarket; but not that wretched hovel that stands there at present. One of the most beautiful of his works is the queen's house at Greenwich. The first idea of the hospital is said to have been taken from his papers by his scholar Webb. Heriot's hospital in Edinburgh, and the improvements made in his time on Glammis Castle in Forfarshire in Scotland, are specimens of the designs of Inigo Jones. Jones.

Inigo tasted early the misfortunes of his master. He was not only a favourite, but a Roman Catholic: in 1646 he paid 545l. for his delinquency and sequestration. Whether it was before or after this fine, it is uncertain, that he and Stone the mason buried their joint stock in Scotland yard; but an order being published to encourage the informers of such concealments, and four persons being privy to the spot where the money was hid, it was taken up, and reburied in Lambeth-marsh. Grief, misfortunes, and age, put an end to his life at Somerset-house, July 21. 1651. Several of his designs have been published by Mr Kent, Mr Colin Campbell, and Mr Isaac Ware. He left in MS. some curious notes on Palladio's architecture, which are inserted in an edition of Palladio published in 1714.

Jones, *Sir William*, the son of William Jones, Esq. an eminent mathematician, cotemporary with the great Newton, was born in London on the 28th of September 1746, and received the rudiments of his education at Harrow school, under the tuition of Dr Robert Sumner, whom he has celebrated in an eulogium which will probably be coeval with time. From Harrow school he went to University college, Oxford, where the rapidity of his literary acquisitions excited the admiration of all.

He travelled through France at the age of 23, taking up his residence for some time at Nice, where man, and the various forms of government, became the favourite objects of his investigation. A wish to relieve his mother from the burden of his education, made him long for a fellowship in his college, but having no immediate prospect of obtaining it, he in 1765 became tutor to young Lord Althorpe, afterwards Earl Spencer, in which situation he was introduced to the best of company, and had also leisure to prosecute the acquisition of knowledge, and the farther cultivation of his intellectual powers, which were objects ever dear to him.

He obtained next year, the fellowship he expected, and was thus raised to a state which he could not help viewing as independent. Being at Spa with his pupil in the year 1767, he employed much of his time in making himself acquainted with the German language; and in the following year he was requested by the duke of Grafton's under-secretary, to undertake a translation of a Persian MS. of the life of Nadir Shah, into the French language, of which the king of Denmark was

anxious

Jones. anxious to have a version. This, his first publication, appeared in 1770, with the addition of a treatise on oriental poetry, which was very much admired, on account of the elegance of the French style and the accuracy of the translation. For this excellent publication it appears that he received nothing more than a diploma from his Danish majesty, constituting him a member of the Royal Society of Copenhagen, with a warm recommendation to the notice of his own sovereign.

That he might be enabled to gratify his commendable ambition, he now began to think seriously of some profession through life; and, as he had conceived an early predilection for the law, he made that the object of his choice; and in the month of September 1770, he entered at the Temple. Yet the studies of his profession did not prevent him from making those literary advances, in which he so much delighted, and oriental literature still continued a favourite object. When the life of Zoroaster by Anquetil du Perron made its appearance, in the preliminary discourse to which the university of Oxford had been attacked, our author defended it in a pamphlet written with severity and with elegance. In 1772, he published a small volume of poems, being translations from the Asiatic poets, remarkable for the grace and brilliancy of their style; and in 1774 appeared his work "*De Poesi Asiatica*," the beauty and purity of the Latin in which it is composed, exciting the admiration of men of literature both at home and abroad. He was called to the bar in the beginning of 1774, but declined to act in that capacity without a previous knowledge of the actual business of the profession. He was appointed a commissioner of bankrupts in 1776, about which period he addressed a letter to Lord Althorpe, in which he beautifully expresses his ardent wish to have constitutional liberty established by constitutional means.

His translation of the speech of Isæus, on account of his elegant style, his profound critical and historical knowledge, commanded the admiration of every competent judge. Soon after this his practice at the bar increased with rapidity; but he had little reason to flatter himself with the prospect of advancement in professional rank and dignity, because he was known to be convinced of the injustice of the British cause respecting the American war, which he was at no pains to conceal; and therefore an opposer of the measures of those who had the direction of public affairs, had little preferment to look for. In 1780 he became a candidate to succeed to Sir Roger Newdigate as representative in parliament for the university of Oxford, in which he was respectably supported; but his political sentiments were ill suited to secure him a majority, which made him decline the contest prior to the election. He soon after published a pamphlet entitled "An Inquiry into the legal mode of suppressing riots, with a constitutional plan of future defence," recommending the propriety of making every citizen a soldier in cases of imminent danger. He next published a translation of seven ancient poems of the highest reputation in Arabia, which, with an ode on the marriage of Lord Althorpe, procured for him the highest reputation. His essay on the laws of bailments was also much admired, as was his speech at the London tavern in defence of a parliamentary reform in 1782. At Paris, he drew up a dialogue between a farmer and a country gentleman on the principles of government, published in Wales by the dean of St Asaph, for which a bill of indictment was preferred against that clergyman. In a letter to Lord Kenyon, Mr Jones avowed himself to be the author, and asserted the principles it contained to be perfectly agreeable to the British constitution; but it appears that he afterwards relaxed considerably in his political ardour. Jones.

After the resignation of Lord North, and appointment of Lord Shelburne, Mr Jones was nominated one of the judges in the British territories of India, an appointment which he had long wished for, as it would afford him an opportunity of prosecuting his favourite researches into oriental literature. He was chosen a judge in March 1783, and on the 20th of that month the honour of knighthood was conferred upon him. He arrived at Calcutta in September, and entered upon his office in December, opening the sessions with a very elegant charge to the grand jury. Here he planned the institution of a society similar to the Royal Society of London, many valuable labours and researches of which are already in the hands of the public. He collected materials for a complete digest of the Hindoo and Mahometan laws, which interesting work he did not live to bring to a conclusion. The publication of the "Asiatic Researches" occupied much of his attention. In 1789 he translated an ancient Indian drama called "Sacontala," which has been considered as an interesting curiosity. In 1794 he gave the world his "Ordinances of Menu," a famous Indian legislator, containing a system of duties both civil and religious.

The climate of India proving unfavourable to the health of Lady Jones, obliged her to return to England, whither Sir William soon designed to follow her. On the 20th of April 1794, he was seized at Calcutta with an inflammation of the liver, which set the powers of medicine at defiance, and on the 27th of the same month put a period to his existence without pain or struggle.

It may be fairly asserted that few men have died more respected or regretted, as few have passed a more useful and irreproachable life. The uncommon extent of his erudition has been displayed in all his writings, and scarcely any subject of human research escaped his notice. He has scarcely ever been equalled as a linguist, for he is said to have been more or less acquainted with about 28 different languages. Taste and elegance marked all his exertions, and he might have risen as a poet to the very first rank. Great as his knowledge was, his virtue and religion were not inferior. In whatever light we think proper to view him as standing in relation to society, he was undoubtedly a pattern worthy of imitation.

As a permanent monument to his memory, his affectionate lady published his whole finished works in six quarto volumes, in the year 1799; and a marble monument to his memory by the same endearing friend, is placed in the antichamber of University college, Oxford. The East India Company also voted a monument to his memory in St Paul's cathedral, and a statue of him to be sent out to Bengal. Memoirs of his life were published by Lord Teignmouth, and a

society

Jones || Joppa.

society of gentlemen in Bengal who had been educated at Oxford, subscribed a sum for a prize dissertation on his character and merits, by students in that university.

IONIA, a country of Asia Minor, bounded on the north by Æolia, on the west by the Ægean and Icarian seas, on the south by Caria, and on the east by Lydia and part of Caria. It was founded by colonies from Greece, and particularly Attica, by the Ionians or subjects of Ion. Ionia was divided into 12 small states, which formed a celebrated confederacy often mentioned by the ancients. These 12 states were Priene, Miletus, Colophon, Clazomenæ, Ephesus, Lebedos, Teos, Phocæa, Erythræ, Smyrna, and the capitals of Samos and Chios. The inhabitants of Ionia built a temple which they called *Pan Ionium* from the concourse of people that flocked there from every part of Ionia. After they had enjoyed for some time their freedom and independence, they were made tributary to the power of Lydia by Crœsus. The Athenians assisted them to shake off the slavery of the Asiatic monarchs; but they soon forgot their duty and relation to their mother-country, and joined Xerxes when he invaded Greece. They were delivered from the Persian yoke by Alexander, and restored to their original independence. They were reduced by the Romans under the dictator Sylla.

IONIAN ISLANDS, seven islands on the western coast of Greece, which were erected into a republic in 1800, and are now under the protection of Great Britain. See *Ionian Islands*, SUPPLEMENT.

IONIC ORDER. See ARCHITECTURE, N° 45.

Ionic Dialect, in *Grammar*, a manner of speaking peculiar to the people of Ionia.

Ionic Sect was the first of the ancient sects of philosophers; the others were the Italic and Eleatic. The founder of this sect was Thales, who being a native of Miletus in Ionia, occasioned his followers to assume the appellation of *Ionic*: Thales was succeeded by Anaximander, and he by Anaximenes, both of Miletus: Anaxagoras Clazomenius succeeded them, and removed his school from Asia to Athens, where Socrates was his scholar. It was the distinguishing tenet of this sect, that water was the principle of all natural things.

IONIUM MARE, a part of the Mediterranean sea, at the bottom of the Adriatic. It lies between Sicily and Greece. That part of the Ægean sea which lies on the coasts of Ionia in Asia, is called the *Sea of Ionia*, and not the *Ionian sea*. According to some authors, the Ionian sea receives its name from Io, who swam across there after she had been metamorphosed into a heifer.

JONK, or JONQUE, in naval affairs, is a kind of small ship, very common in the East Indies. These vessels are about the bigness of our fly-boats; and differ in the form of their building, according to the different methods of naval architecture used by the nations to which they belong. Their sails are frequently made of mats, and their anchors are made of wood.

JOPPA, a sea-port town in Palestine, lying south of Cæsarea; and anciently the only port to Jerusalem, whence all the materials sent from Tyre towards the building of Solomon's temple were brought hither and landed, (2 Chron. ii. 16.). It is said to have been built by Japhet, and from him to have taken its name *Japho*, afterwards moulded into *Joppa*; and the very heathen geographers speak of it as built before the flood. It is now called *Jaffa*, somewhat nearer to its first appellation, and is but in a poor and mean condition. Joppa || Joshua.

JOR, the Hebrew for a river, which, joined with Dan, concurs to form the term *Jordan*. See DAN.

JORDANO, LUCCA, an eminent Italian painter, was born at Naples in 1632. He became very early a disciple of Joseph Ribera; but going afterwards to Rome, he attached himself to the manner of Pietro da Cortona, whom he assisted in his great works. Some of his pictures being seen by Charles II. king of Spain, he engaged him in painting the Escurial; in which task he acquitted himself as a great painter. The king showed him a picture of Bassani, expressing his concern that he had not a companion: Lucca painted one so exactly in Bassani's manner, that it was taken for a performance of that master; and for this service he was knighted, and gratified with several honourable and valuable employments. The great works he executed in Spain gave him still greater reputation when he returned to Naples; so that though he was a very quick workman, he could not supply the eager demands of the citizens. No one, not even Tintoret, ever painted so much as Jordano; and his generosity carried him so far as to present altar-pieces to churches that were not able to purchase them. His labours were rewarded with great riches; which he left to his family, when he died, in 1705.

JOSEPH, the son of Jacob; memorable for his chastity, and the honours conferred on him at the court of Egypt, &c. He died in 1635 B. C. aged 110.

JOSEPHUS, the celebrated historian of the Jews, was of noble birth, by his father Mattathias descended from the high-priests, and by his mother of the blood-royal of the Maccabees; he was born A. D. 37, under Caligula, and lived under Domitian. At 16 years of age he betook himself to the sect of the Essenes, and then to the Pharisees; and having been successful in a journey to Rome, upon his return to Judæa he was made captain-general of the Galilæans. Being taken prisoner by Vespasian, he foretold his coming to the empire, and his own deliverance by his means. He accompanied Titus at the siege of Jerusalem, and wrote his "Wars of the Jews," which Titus ordered to be put in the public library. He afterwards lived at Rome, where he enjoyed the privileges of a Roman citizen, and where the emperors loaded him with favours, and granted him large pensions. Besides the above work, he wrote, 1. Twenty books of Jewish antiquities, which he finished under Domitian. 2. Two books against Apion. 3. An elegant discourse on the martyrdom of the Maccabees. 4. His own life. These works are excellently written in Greek.

JOSHUA, the renowned general of the Jews, who conducted them through the wilderness, &c. died in 1424 B. C. aged 110.

JOSHUA, a canonical book of the Old Testament, containing a history of the wars and transactions of the person whose name it bears. This book may be divided into three parts: the first of which is a history of the conquest of the land of Canaan; the second, which begins at the 12th chapter, is a description of that country, and the division of it among the tribes; and

Joshua ‖ Journal.

and the third, comprised in the two last chapters, contains the renewal of the covenant he caused the Israelites to make, and the death of their victorious leader and governor. The whole comprehends a term of 17, or, according to others, of 27 years.

JOSIAH, king of Judah, the destroyer of idolatry, and the restorer of the true worship, an excellent magistrate, and a valiant general, was slain in battle, 609 B. C.

JOTAPATA, in *Ancient Geography*, a town of the Lower Galilee, distant 40 stadia from Gabara; a very strong place, situated on a rock, walled round, and encompassed on all hands with mountains, so as not to be seen but by those who came very near. It was with great difficulty taken by Vespasian, being defended by Josephus, who commanded in it; when taken, it was ordered to be rased.

JOVIAN, the Roman emperor, elected by the army, after the death of Julian the apostate, in 363. He at first refused, saying he would not command idolatrous soldiers; but, upon an assurance that they would embrace Christianity, he accepted the throne, and immediately shut all the Pagan temples, and forbade their sacrifices. But he did not long enjoy the dignity to which his merit had raised him; being suffocated in his bed by the fumes of a fire that had been made to dry the chamber, in 364, the 33d of his age, and the eighth month of his reign. See CONSTANTINOPLE, N° 67.

JOVIUS, PAUL, in Italian *Giovio*, a celebrated historian, was born at Como in Italy, in the year 1483. As his father died in his infancy, he was educated by his eldest brother Benedict Jovius, under whom he became well skilled in classical learning; and then went to Rome, for the sake of enjoying the benefit of the Vatican library. He there wrote his first piece, *De piscibus Romanis*, which he dedicated to Cardinal Lewis of Bourbon. He received a pension of 500 crowns for many years from Francis I. king of France, whose favour he secured by his flatteries. But, in the following reign, having disgusted the constable Montmorency, his name was struck out of the list of pensioners. Jovius did not suffer his spirits to sink under his misfortune: he had obtained a high reputation in the learned world by his writings; and having always showed great respect to the house of Medicis, on whose praises he had expatiated in his works, he applied to Clement VII. and obtained the bishoprick of Nocera. His principal piece is his history, which is that of his own time throughout the world, beginning with 1494, and extending to the year 1544. This was the chief business of his life. For he formed the plan of it in the year 1515; and continued upon it till his death, which happened at Florence in 1552. It is printed in three volumes folio. He is allowed to have been a man of wit as well as learning: he was master of a bright and polished style, and has many curious observations: but being a venal writer, his histories are not much credited.

JOURNAL, a day-book, register, or account of what passes daily. See DIARY.

JOURNAL, in merchants accounts, is a book into which every particular article is posted out of the waste-book, and made debtor. This is to be very clearly worded, and fairly engrossed. See *Book-Keeping*.

JOURNAL, in *Navigation*, a sort of diary, or daily register of the ship's course, winds, and weather; together with a general account of whatever is material to be remarked in the period of a sea-voyage. Journal ‖ Iphigenia.

In all sea-journals, the day, or what is called the 24 *hours*, terminate at noon, because the errors of the dead-reckoning are at that period generally corrected by a solar observation. The daily compact usually contains the state of the weather; the variation, increase, or diminution of the wind; and the suitable shifting, reducing, or enlarging the quantity of sail extended; as also the most material incidents of the voyage, and the condition of the ship and her crew; together with the discovery of other ships or fleets, land, shoals, breakers, soundings, &c.

JOURNAL, is also a name common for weekly essays, newspapers, &c. as the Gray's Inn Journal, the Westminster Journal, &c.

JOURNAL, is also used for the titles of several books which come out at stated times, and give abstracts, accounts, &c. of the new books that are published, and the new improvements daily made in arts and sciences; as the *Journal de Sçavans*, *Journal de Physique*, &c.

JOURNEY, a tract of ground passed over in travelling by land; properly as much as may be passed over in one day.

Management of a Horse on a JOURNEY. See HORSE.

JOURNEYMAN, properly one who works by the day only; but the word is now used for any one who works under a master, either by the day, the year, or the piece.

JOY, in *Ethics*, is that passion which is produced by love, regarding its object as present, either immediately or in prospect, in reality or imagination. The operation of joy sometimes affects the functions of the body, by increasing the secretion of perspiration and some others.

JOYNERY. See JOINERY.

IPECACUANHA, the root of a plant which is well known by its use as an emetic. See MATERIA MEDICA *Index*.

IPHICRATES, general of the Athenians, had that command conferred upon him at 20 years of age, and became famous for the exactness of his military discipline. He made war on the Thracians; restored Seuthes, who was an ally of the Athenians; attacked the Lacedæmonians, and, on many other occasions, gave signal proofs of his conduct and courage. Many ingenious repartees have been mentioned of this general: a man of good family, with no other merit than his nobility, reproaching him one day for the meanness of his birth, he replied, "I shall be the first of my race, and thou the last of thine." He died 380 B. C.

IPHIGENIA, a daughter of Agamemnon and Clytemnestra. When the Greeks going to the Trojan war were detained by contrary winds at Aulis, they were informed by one of the soothsayers, that to appease the gods they must sacrifice Iphigenia, Agamemnon's daughter to Diana. The father, who had provoked the goddess by killing her favourite stag, heard this with the greatest horror and indignation; and rather than to shed the blood of his daughter, he commanded one of his heralds, as chief of the Grecian forces, to order all the assembly to depart each to his respective home. Ulysses and the other generals interfered, and

Agamemnon

Iphigenia
Ipswich.

Agamemnon consented to immolate his daughter for the common cause of Greece. As Iphigenia was tenderly loved by her mother, the Greeks sent for her on pretence of giving her in marriage to Achilles. Clytemnestra gladly permitted her departure, and Iphigenia came to Aulis. Here she saw the bloody preparations for the sacrifice. She implored the forgiveness and protection of her father; but tears and entreaties were unavailing. Calchas took the knife in his hand; and as he was going to strike the fatal blow, Iphigenia suddenly disappeared, and a goat of uncommon size and beauty was found in her place for the sacrifice. This supernatural change animated the Greeks, the wind suddenly became favourable, and the combined fleet set sail from Aulis.

IPOMEA, Quamoclit, or Scarlet Convolvulus; a genus of plants, belonging to the pentandria class, and in the natural method ranking under the 29th order, *Campanaceæ*. See Botany *Index*.

IPSWICH, the capital of the county of Suffolk, in England, seated in E. Long. 1. 6. N. Lat. 52. 12. The name comes from the Saxon *Cypeswick*, that is, a town situated upon the Gyppen, now called *Orwell*. It had once 21 churches, but now has only 12. It was plundered by the Danes in 991, and afterwards besieged by King Stephen. It had charters and a mint in the reign of King John, but its last charter was from Charles II. The remains of a wall and six or seven religious houses are still to be seen. Though it is not in so flourishing a state as formerly when the harbour was more commodious, yet it is still a large well built town. Besides the churches already mentioned, it has several meeting-houses, two chapels, a town-hall, council chamber, a large market place with a cross in the middle of it, a shire-hall for the county sessions, a library, several hospitals, a free-school, a handsome stone-bridge over the river, stately shambles in the market place built by Cardinal Wolsey, who was a native of the town and a butcher's son, and who also began to build a college here on the ruins of a small college of black canons, which still bears his name, though it was never finished. Here are also several alms-houses, three charity-schools, and a convenient key and customhouse. By virtue of Charles II.'s charter, the town is governed by two bailiffs, a recorder, 12 portmen, of whom the bailiffs are two, a town-clerk, two coroners, and 24 common-council. The bailiffs and 4 of the portmen are justices of the peace. The town enjoys many privileges, as passing fines and recoveries, trying criminals, and even crown and capital causes among themselves, settling the assize of bread, wine, and beer. No freeman is obliged to serve on juries out of the town, or bear any office for the king, except that of the sheriff, or to pay tolls or duties in any other part of the kingdom. They have an admiralty jurisdiction beyond Harwich on the Essex coast, and on both sides the Suffolk coast, by which they are entitled to all goods cast on shore. The bailiffs even hold an admiralty-court beyond Landguard-fort. By a trial in King Edward III.'s time, it appears that the town had a right to the custom-duties for all goods coming into Harwich-haven. The population in 1811 was 13,670, of whom nearly 2000 are employed in manufactures, which are chiefly woollen and linen cloth. It has still a considerable foreign-trade. The tide rises 12 feet, and ships come within a small distance of the town. They export a great deal of corn to London, and in former times to Holland. Formerly, they had a great trade in ship-building; but that having declined, they now send great quantities of timber to the king's yard at Chatham. It has several great fairs for cattle, cheese, and butter; and is admirably situated for the trade to Greenland, because the same wind that carries them out of the river will carry them to Greenland. It is worth remarking, that it is one of the best places in England for persons in narrow circumstances, houserent being easy, provisions cheap and plentiful, the passage by land or water to London, &c. convenient, and the company of the place good. It gives title of viscount, as well as Thetford, to the duke of Grafton; and sends two members to parliament.

Ipswich,
Irascible.

IRASCIBLE, in the old philosophy, a term applied to an appetite or a part of the soul, where anger and the other passions, which animate us against things difficult or odious, were supposed to reside.

Of the eleven kinds of passions attributed to the soul, philosophers ascribe five to the irascible appetite; viz. wrath, boldness, fear, hope, and despair; the other six are charged on the concupiscible appetite, viz. pleasure, pain, desire, aversion, love, and hatred.

IRELAND.

Ireland.

IRELAND, one of the Britannic islands, situated between the 5th and 10th degrees of west longitude, and between the 51st and 56th of north latitude, extending in length about 280 miles, and about 170 in breadth.

The ancient history of this island is involved in so much obscurity, that it has been the object of contention among the antiquarians for upwards of a century and a half. The Irish historians pretend to very great antiquity. According to them, the island was first inhabited about 322 years after the flood. At that time Partholanus the son of Scara landed in Munster on the 14th of May with 1000 soldiers, and some women, from Greece. This voyage he had undertaken on account of his having killed his father and mother in his native country. The same historians inform us, that a great number of lakes broke out in Ireland during the reign of Partholanus, which had no existence when he came into the island, with many other particulars not worth mentioning; but the most surprising circumstance is, that about 300 years after the arrival of this Grecian colony, all of them perished by a plague, not a single person remaining to tell the fate of the rest; in which case, it is wonderful how the catastrophe should have been known.

Ireland.

1
Origin of the Irish according to their own historians.

After the extinction of this first colony, Ireland remained a perfect wilderness for 30 years; when another colony arrived from the east, under the direction of one Nemedius. He set sail from the Euxine sea with 30 transports, each manned with 40 heroes; and

Ireland. at last arrived on the coasts of Ireland, after a very tedious and strange navigation. During his reign also many lakes were formed in the country, which had no existence before; the most material circumstance, however, was an unsuccessful war in which he was engaged with some African pirates, who in the end enslaved his people. The victors proved such insupportable tyrants, that the Irish found themselves under a necessity of quitting the island altogether. They embarked on board a fleet of 1130 ships, under the command of three grandsons of Nemedius, viz. Simon Breac, To Chath, and Briatan Maol. The first returned to Greece, the second sailed to the northern parts of Europe, and the third landed in the north of Scotland, and from him the island of Britain is said to have taken its name, and the Welsh their origin.

About 216 years after the death of Nemedius, the descendents of Simon Breac returned from Greece into Ireland. They were conducted by five princes of great reputation, who divided the island into five kingdoms, nearly equal in size. These kingdoms were called *Munster*, *Leinster*, *Connaught*, *Meath*, and *Ulster*; and the subjects of these kings are called by the Irish historians *Firbolgs*.

The Firbolgs were in process of time expelled or totally subdued, after the loss of 100,000 men in one battle, by the *Tuath de Dannans*, a nation of necromancers, who came from Attica, Bœotia, and Achaia, into Denmark, from Denmark to Scotland. and from Scotland to Ireland. These necromancers were so completely skilled in their art, that they could even restore the dead to life, and bring again into the field those warriors who had been slain the day before. They had also some curiosities which possessed a wonderful virtue. These were a sword, a spear, a cauldron, and a marble chair; on which last were crowned first the kings of Ireland, and afterwards those of Scotland. But neither the powerful virtues of these Danish curiosities, nor the more powerful spells of the magic art, were able to preserve the *Tuath de Dannans* from being subdued by the Gadelians when they invaded Ireland.

The Gadelians were descended from one Gathelus, from whom they derived their name. He was a man of great consequence in Egypt, and intimately acquainted with Moses the Jewish legislator. His mother was Scota the daughter of Pharaoh, by Niul the son of a Scythian monarch cotemporary with Nimrod. The Gadelians, called also *Scots*, from Scota abovementioned, conquered Ireland about 1300 B. C. under Heber and Heremon, two sons of Milesius king of Spain, from whom were descended all the kings of Ireland down to the English conquest, and who are therefore styled by the Irish historians princes of the *Milesian race*.

From this period the Irish historians trace a gradual refinement of their countrymen from a state of the grossest barbarity, until a monarch, named *Ollam Fodla*, established a regular form of government, erected a grand seminary of learning, and instituted the *Fes*, or triennial convention of provincial kings, priests, and poets, at Feamor or Tarah in Meath, for the establishment of laws and the regulation of government. But whatever were the institutions of this monarch, it is acknowledged that they proved insufficient to withstand the wildness and disorder of the times. To Kimbath, one of his successors, the annalists give the honour of reviving them, besides that of regulating Ulster, his family province, and adorning it with a stately palace at Eamannia near Armagh. His immediate successor, called *Hugony*, is still more celebrated for advancing the work of reformation. It seems, that, from the earliest origin of the Irish nation, the island had been divided into the five provincial kingdoms above mentioned, and four of these had been subject to the fifth, who was nominal monarch of the whole island. These four, however, proved such obstinate disturbers of the peace, that Hugony, to break their power, parcelled out the country into 25 dynasties, binding them by oath to accept no other monarch but one of his own family. This precaution proved ineffectual. Hugony himself died a violent death, and all his successors for a series of ages were assassinated, scarcely with one exception. Ireland.

About 100 B. C. the pentarchal government was restored, and is said to have been succeeded by a considerable revolution in politics. The Irish bards had for many ages dispensed the laws, and the whole nation submitted to their decisions; but as their laws were exceedingly obscure, and could be interpreted only by themselves, they took occasion from thence to oppress the people, until at last they were in danger of being totally exterminated by a general insurrection. In this emergency they fled to Convocar-Mac-Nessa, the reigning monarch, who promised them his protection in case they reformed; but, at the same time, in order to quiet the just complaints of his people, he employed the most eminent among them to compile an intelligible, equitable, and distinct body of laws, which were received with the greatest joy, and dignified with the name of *celestial decisions*. These decisions seem to have produced but very little reformation among the people in general. We are now presented with a new series of barbarities, murders, factions, and anarchy; and in this disordered situation of affairs it was, according to the Irish historians, that the chieftain mentioned by Tacitus addressed himself to Agricola, and encouraged him to make a descent on Ireland. This scheme happened not to suit the views of the Roman general at that time, and therefore was not adopted; and so confident are these historians of the strength of their country, even in its then distracted state, that they treat the notion of its being subdued by a Roman legion and some auxiliaries (the force proposed to Agricola) as utterly extravagant; acquainting us at the same time, that the Irish were so far from dreading a Roman invasion, that they sailed to the assistance of the Picts, and having made a successful incursion into South Britain, returned home with a considerable booty.

In the same state of barbarity and confusion the kingdom of Ireland continued till the introduction of Christianity by St Patrick, about the middle of the fifth century. This missionary, according to the adversaries of the Irish antiquity, first introduced letters into Ireland, and thus laid the foundations of a future civilization. On the other hand, the advocates for that antiquity maintain, that the Irish had the knowledge of letters, and had made considerable progress in the arts, before the time of St Patrick; though they allow

Ireland. that he introduced the Roman character, in which his copies of the Scripture and liturgies were written. To enter into the dispute would be contrary to our plan. It is sufficient to observe, that, excepting by some of the Irish themselves, the history already given is generally reckoned entirely fabulous, and thought to have been invented after the introduction of Christianity. An origin of the Irish nation has been found out much nearer than Asia, Greece, or Egypt; namely, the island of Britain, from whence it is now thought that Ireland was first peopled. A dispute hath arisen concerning the place from whence the first emigrants from Britain set sail for Ireland. The honour of being the mother-country of the Irish hath been disputed between the North and South Britons. Mr Macpherson has argued strenuously for the former, and Mr Whitaker for the latter. For an account of their dispute, however, we must refer to the works of these gentlemen. Mr Whitaker claims the victory, and challenges to himself the honour of being the first who clearly and truly demonstrated the origin of the Irish.

2 Early history of Ireland by Mr Whitaker.

The name of Ireland, according to Mr Whitaker, is obviously derived from the word *Jar* or *Eir*, which in the Celtic language signifies "west." This word was sometimes pronounced *Iver* and *Hiver;* whence the names of *Iris*, *Ierna*, *Juverna*, *Iverna*, *Hibernia*, and *Ireland;* by all of which it hath at some time or other been known.

About 350 B. C. according to the same author, the Belgæ crossed the channel, invaded Britain, and seized the whole extended line of the southern coast, from Kent to Devonshire. Numbers of the former inhabitants, who had gradually retired before the enemy, were obliged at last to take shipping on the western coast of England, and passed over into the uninhabited isle of Ireland. These were afterwards joined by another body of Britons driven out by the Belgæ under Divitiacus, about 100 B. C. For two centuries and a half afterwards, these colonies were continually reinforced with fresh swarms from Britain; as the populousness of this island, and the vicinity of that, invited them to settle in the one, or the bloody and successive wars in Britain during this period naturally induced them to relinquish the other: and the whole circuit of Ireland appears to have been completely peopled about 150 years after Christ: and as the inhabitants had all fled equally from the dominion of the Belgæ, or for some other cause left their native country, they were distinguished among the Britons by one general and very apposite name, viz. that of *Scuites* or *Scots*, "the wanderers, or refugees."

3 Names and situation of the tribes by which it was inhabited.

Mr Whitaker also informs us, "that in the times of the Romans Ireland was inhabited by 18 tribes; by one upon the northern and three on the southern shore, seven upon the western, six on the eastern, and one in the centre.

"Along the eastern coast, and the Vergivian or internal ocean, were ranged the Damnii, the Voluntii, and the Eblani, the Caucii, the Menapii, and the Coriondii. The first inhabited a part of the two counties of Antrim and Down, extending from Fair head, the most north-easterly extremity of the island, to Isamnum Promontorium, or the point of Ardglass haven, in the county of Down; and, having the Logia or Lagan, which falls into Carrickfergus bay, within their possessions, and Dunum or Down-patrick for their capital. The Voluntii possessed the coast from the point of that haven to the river Buvinda or Boyne, the remainder of Down, the breadth of Armagh, and all Louth; having the Vinderus or Carlingford river in their dominions, and the town of Laberus near the river Deva (Atherdee in the county of Louth) for their metropolis. And the Eblani reached from the Boyne to the Læbius, Læv-ui, or Liffy; residing in East Meath, and in the large portion of Dublin county which is to the north of this river; and acknowledging Mediolanum, Eblana, or Dublin, for their principal town. The Caucii spread from the Liffy to the Letrim, the Oboca of the ancients; had the rest of Dublin county, and such parts of Wicklow as lie in the north of the latter; and owned Dunum or Rath-Downe for their chief city. The Menapii occupied the coast betwixt the Letrim and Cancarne-point, all the rest of Wicklow, and all Wexford to the point; their chief town, Menapia, being placed upon and to the east of Modona, Slanus, or Slane. And the Coriondii inhabited at the back of the Caucii and Menapii, to the west of the Slane and Liffy, and in all Kildare and all Catherlogh; being limited by the Boyne and Barrow on the west, the Eblani on the north, and the Brigantes on the south.

"Upon the southern shore, and along the verge of the Cantabrian ocean, lay the Brigantes, the Vodiæ, and the Ibernii. The first owned the rest of Wexford and all Waterford: extending to the Blackwater, Aven-More, or Dabrona, on the south-west; having the great mouth of the Barrow within their territories, and Brigantia, Waterford, or some town near it, for their first city; and giving name of *Brigas* to the Suir or Swire, their limitary stream on the north, and the appellation of *Bergie* to their own part of the county of Wexford. The Vodiæ possessed the shire of Corke from the Blackwater to the Ban, the river of Kinsale, and the Dobona or Dubana of the ancients; and affixed the name of *Vodium Promontorium* to the point of Balycotton island. And the Ibernii inhabited the remainder of Corke, and all that part of Kerry which lies to the south-east of Dingle sound; having Rusina or Ibaune for their capital, the Promontorium Austrinum or Missen-Head about the middle of their dominions, and the river Ibernus or Dingle sound for their northern barrier; and leaving their names to the three divisions of Ibaune, Beare, and Iveragh.

"Upon the western shore of the island, and along the Great Britannic or Atlantic ocean, were the Lucanii or Lucenii, the Velaborii, and the Cangani, the Auterii, the Nagnatæ, the Hardinii, and Venicnii. The Lucenii inhabited the peninsula of land that lies along the river Ibernus or Dingle sound, and perhaps some adjoining parts of Kerry. The Velaborii ranged along the small remainder of the latter, and over the whole of Limerick to the Senus or Shannon; having the Durius or Casheen flowing through their dominions, and Regia, Limerick or some town near it, for their metropolis. And the latter was probably that city near Limerick, the site of which is still famous, and retains the appellation of *Cathair*, or the fortress; and where the remains of streets, and other marks of a town, may yet be traced. The Cangani lived in the county of Clare:

Ireland. Clare: Malcolicum near the Shannon, perhaps Feakle or Melic, being their principal town; a headland in the bay of Galway, near Glaniny, being denominated *Benisamnum Promontorium;* and the adjoining isles of Arran called *Insulæ Canganæ.* The Auterii were settled in the county of Galway; winding along the deep recess of the Sinus Ausoba or bay of Galway; stretching towards the north as far as the Libnius, or the river that bounds the shire in that part; and possessing the small portion of Mayo which lies to the south of it. And these were subject to Auterium, anciently Aterith, and now Athenree; and have left their name to the division of Athenree. The Nagnatæ occupied the rest of the large county of Mayo, all Sligo and all Roscommon, all Letrim as far as Logh Allin on the south-east, and all Fermanagh, to Balyshannon and Logh Erne; being bounded by the Rhebius or river of Balyshannon, and the lake Rhebius or Logh Erne; having a deep bay, called *Magnus Sinus*, that curves along Mayo, Sligo, and Letrim counties; and acknowledging Nagnat, Necmaht, or Alnecmaht, the town of the Nagnatæ, for their capital. And the Hardinii and Venicnii were confederated together under the title of the *Venicnian Nations*, extended from Balyshannon to the North Cape, and possessed all Donnegalle, except the two whole divisions of Raphoe and Enis-Owen, and the eastern part of Killmacrenen. The Venicnii lay along the immediate margin of the shore, giving name to the Promontorium Venicnium or Cape Horn, and to the Insula Venicnia or North Arran Island. And their metropolis Rheba was seated upon the lake Rhebius, and in the country of the Hardinii on the south-east.

"Upon the northern shore and along the margin of the Deucaledonian ocean, were only the Robogdii; inhabiting the rest of Donnegalle, all Derry, and all Antrim to the Fair-Head, and the Damnii; and giving their own name to the former and the division of Raphoe. And they had the rivers Vidua or Shipharbour, Arigta or Logh Swilly, Darabouna or Logh Foile, and Banna, or Ban, in their territories; and acknowledged Robogdium, Robogh, or Raphoe, for their chief city.

"The central regions of the island, all Tyrone, the remainder of Fermanagh and Letrim, all Monaghan, and the rest of Ardmagh; all Cavan, all Longford, and all West-Meath; all the King's and Queen's county, all Kilkenny, and all Tipperary; were planted by the Scoti. The Shannon, Logh Allin, and Logh Erne, were their great boundaries on the west; the Barrow, Boyne, and Logh Neagh, on the east; the Swire and Blackwater on the south; and a chain of mountains on the north. And the two greatest of their towns were Rheba, a city seated, like the Rheba of the Venicnians, upon the lake and river Rhebius, but on a different part of them, and somewhere in the north of Cavan; and Ibernia, a town placed a little to the east of the Shannon, and somewhere in the county of Tipperary."

But whether we are to receive as a truth the accounts given by Mr Whitaker, those of the Irish annalists, or any other, it is certain, that, till little more than a century ago, Ireland was a scene of confusion and slaughter. The Irish historians acknowledge this, as we have already seen. Very few of their monarchs escaped a violent death. The histories of their kings indeed amount to no more than this, viz. that they began to reign in such a year, reigned a certain number of years, and were slain in battle by the valiant prince who succeeded to the throne. The introduction of Christianity seems to have mended the matter very little, or rather not at all. The same wars between the chiefs continued; and the same murders and treacheries took place among the inhabitants, till they were invaded by the Danes or Normans, about the end of the eighth century. At this time, we are told, that the monarchical power was weak, by reason of the factious and assuming disposition of the inferior dynasties; but that the evils of the political constitution had considerably subsided by the respect paid to religion and learning. The first invasions of the Danes were made in small parties for the sake of plunder, and were repelled by the chieftain whose dominions were invaded. Other parties appeared in different parts of the island, and terrified the inhabitants by the havock they committed. These were in like manner put to flight, but never failed to return in a short time; and in this manner was Ireland harassed for the space of 20 years, before the inhabitants thought of putting an end to their intestine contests, and uniting against the common enemy. The northern pirates, either by force or treaty, gradually obtained some small settlements on the island; till at length Turges, or Turgesius, a warlike Norwegian, landed with a powerful armament in the year 815. He divided his fleet and army, in order to strike terror in different quarters. His followers plundered, burned, and massacred, without mercy, and persecuted the clergy in a dreadful manner on account of their religion. The Danes already settled in Ireland, flocked to the standard of Turgesius, who thus was enabled to seat himself in Armagh, from which he expelled the clergy, and seized their lands. The Irish, in the mean time, were infatuated by their private quarrels; till at last, after some ill-conducted and unsuccessful efforts, they sunk into a state of abject submission, and Turgesius was proclaimed monarch of the whole island in 845.

Ireland. 4 Invasion of the Danes.

The new king proved such a tyrant, that he soon became intolerable. A conspiracy was formed against him; and he was seized by Melachline prince of Meath, in a time of apparent peace. An universal insurrection ensued; the Danes were massacred or dispersed; their leader condemned to death for his cruelties, and drowned in a lake. The foreigners, however, were not exterminated, but the remains of them were allowed to continue on the island as subjects or tributaries to some particular chieftains. A new colony soon arrived, but under the pretence of peaceable intentions, and a design of enriching the country by commerce. The Irish, through an infatuated policy, suffered them to become masters of Dublin, Limerick, Waterford, and other maritime places, which they enlarged and fortified with such works as had till then been unknown in Ireland. The Danes did not fail to make use of every opportunity of enlarging their territories, and new wars quickly ensued. The Irish were sometimes victorious, and sometimes not; but were never able to drive out their enemies, so that they continued to be a very distinguished and powerful *sept*, or tribe, in Ireland. The wars with the Danes were no sooner

Ireland.

at an end, than the natives, as usual, turned their arms against each other. The country was harassed by the competitions of the chiefs; laws and religion lost their influence, and the most horrid licentiousness and immorality prevailed. Thus the whole island seemed ready to become a prey to the first invader, when an attempt was made upon it by Magnus king of Norway. This attempt miscarried through his own rashness; for, having landed without opposition, he advanced into the country without the least apprehension. The consequence of this was, that he was surrounded and cut to pieces with all his followers. His death, however, proved of little benefit to Ireland; the same disorders which had gradually reduced the kingdom to a state of extreme weakness, still continued to operate, and to facilitate the success of the English invasion, which happened in the reign of Henry II.

5 Henry II. of England meditates an invasion of Ireland.

The first motives which induced this monarch to think of an expedition against Ireland are not well known. It was supposed that he had been provoked by some assistance which the Irish princes had given to the French; but, whatever might be in this, it is certain that the design was conceived soon after he ascended the throne; and his flatterers soon furnished him with sufficient reasons for considering the Irish as his subjects. It was affirmed that they had originally possessed themselves of their country by permission of Gurguntius a British king; and that, as descendants of the Britons, they were the natural and rightful subjects of the English monarch. It was also suggested, that the renowned King Arthur, Egfred the Northumbrian prince, and Edgar one of the Saxon kings of England, had all led their armies into Ireland, and there made valuable acquisitions, which their successor was in honour bound to recover and maintain. All these suggestions, however, or whatever else had occurred to himself, seemed yet insufficient to Henry; and therefore he took the most effectual method to insure his reputation, namely, by an application to the pope. To him he represented, that the inhabitants of Ireland were sunk into the most wretched state of corruption, both with regard to morals and religion; that Henry, zealous for the honour and enlargement of God's kingdom, had conceived the pious design of erecting it in this unhappy country; was ready to devote himself and all his powers to this meritorious service; implored the benediction of the pontiff; and requested his permission and authority to enter Ireland to reduce the disobedient and corrupt, to eradicate all sin and wickedness, to instruct the ignorant, and spread the blessed influence of the gospel in all its purity and perfection; promising at the same time to pay a yearly tribute to St Peter from the land thus to be reduced to his obedience, and to the holy see. Adrian, the reigning pope, rejoiced at this application which tended so much to the advancement of his own power.

6 Is invested with the sovereignty by the pope.

A bull was therefore immediately formed, conformable to the most sanguine wishes of Henry, which was sent to England without delay, together with a ring, the token of his investiture as rightful sovereign of Ireland. But whatever inclination the king of England or the pope might at this time (A. D. 1156) have for the subjection of Ireland, the situation of the English affairs obliged him to defer it for some time.

Ireland.

The state of Ireland, as we have already observed, was at this time extremely favourable for an invasion. The monarch enjoyed little more than a titular dignity, being harassed by a faction, and opposed by powerful rivals. A number of chieftains who assumed the title and rights of royalty, paid a precarious tribute to their superior, and united, if they were disposed to unite, with him, rather as his allies than his subjects. In Ulster, the family of the northern *Hi-Nial*, as it was called, exercised a hereditary jurisdiction over the counties now called *Tyrone*, *Derry*, and *Donnegal*. They also claimed a right of supremacy over the lords of Fermanagh, Antrim, and Argial, which included the counties of Armagh, Monaghan, Lowth, and some adjacent districts; while Dunleve, prince of Uladh (now Down), disputed the superiority of this family, and affected an independent state. In Munster reigned the descendants of Brien, a famous sovereign of former times, impatient to recover the honours of their family; but at last, being confined by powerful rivals to the territory of North Munster, they were obliged to leave the family of Mac Arthy sovereigns of Desmond, the southern division. In Connaught, the princes known by the name of *O'Connor* were acknowledged sovereigns of the eastern territory. Tiernan O'Ruarc, an active and restless military chief, had the supremacy in Breffney, containing the modern county of Leitrim, and some adjacent districts. Meath, or the southern Hi-Nial, was subject to the family of Clau-Colman, Murchard O'Malachlyn, and his successors. Leinster, divided into several principalities, was subject to Dermod, a fierce, haughty, and oppressive tyrant. His father had governed with great cruelty. Seventeen of his vassal lords had been either put to death, or had their eyes put out, by his order, in one year; and Dermod seemed to inherit too great a portion of the same temper. His stature and bodily strength made him admired by the inferior orders of his subjects; and these he was careful to protect and favour. His donations and endowments of religious houses recommended him to the clergy; but his tributary chieftans felt the weight of his pride and tyranny, and to them his government was extremely odious.

7 State of Ireland at that time.

The chief competitors for the rank of monarch of Ireland, in the mean time, were, the heirs of the two houses of O'Connor, and the northern Hi-Nial. Torlogh O'Connor was in possession; but he was not generally recognised, and was opposed by his rival O'Lochlan: notwithstanding which, he maintained his dignity with magnificence and vigour, till a decisive victory gained by him over O'Brien raised O'Lochlan's jealousy so much, that he obliged him in a convention of the states to allow him the sovereignty of the northern division. In consequence of this partition, it was resolved to transfer the territory of O'Ruarc to a person more inclined to the interests of the two sovereigns. An expedition was accordingly undertaken; O'Ruarc was surprised, defeated, and driven from his dominions. Dermod, who had conceived an unlawful passion for Dervorghal, the wife of O'Ruarc, took the opportunity of her husband's distresses to carry her off in triumph. O'Ruarc conceived the most implacable resentment against Dermod; and therefore applying himself to Torlogh, promised an inviolable attachment to his interest; and prevailed on him not only to reinstate

him

Ireland.

him in his possessions, but to revenge the insult offered by Dermod, and to restore his wife. By means of such a powerful ally, O'Ruarc found frequent opportunities of harassing his antagonist till the death of Torlogh, which happened in 1156, upon which O'Lochlan succeeded to the sovereignty. Dermod was the first to acknowledge the authority of this new sovereign, by whose means he hoped to be able to revenge himself on O'Ruarc. He soon found, however, that he had acted too precipitately. His patron, having treacherously seized and put out the eyes of Dunleve prince of Down, the neighbouring chieftains took arms, in order to secure themselves from his barbarity. O'Lochlan was defeated and killed; upon which the monarchy devolved on Roderic the son of the late Torlogh O'Connor.

The new prince had acquired the reputation of valour, and was determined to establish this reputation by some remarkable exploit in the beginning of his reign. Having therefore engaged in his service the Ostmen, or descendants of the Danes, he marched against Dermod as the chief partizan of his fallen rival. The king of Leinster was seized with the utmost consternation; and in despair set fire to his own town of Ferns, lest the enemy should have the satisfaction of spoiling it. Roderick still advanced, attended by O'Ruarc, Dermod's implacable enemy, and soon overran the whole province. All the inferior lords at once acknowledged Roderic's authority. Dermod was deposed, as a man utterly unworthy of his station; another of his family was raised to the throne; and the unfortunate prince, finding it impossible to stay with safety in Ireland, embarked with 60 of his followers for England, and soon arrived at the port of Bristol, with a design to solicit assistance from King Henry.

8 Dermod an exiled prince, solicits assistance from Henry II.

In England, Dermod's character was unknown, and he was regarded as an injured prince driven from his throne by an iniquitous confederacy. The clergy received him as the benefactor of their order, and entertained him in the monastery of Augustines with great hospitality. Having learned that Henry was then in Aquitain, he immediately went thither, and in a very abject manner implored his assistance, promising to acknowledge him as his liege lord, and to hold his dominions, which he was thus confident of regaining, in vassalage to Henry and his heirs.

Though nothing could be more flattering to the ambition of the king of England than this servile address, yet the situation of his own affairs rendered it impossible for him at that time to reap from it any of the advantages with which it flattered him. He therefore dismissed the Irish prince with large presents, and a letter of credence addressed to all his subjects: notifying his grace and protection granted to the king of Leinster; and declaring, that whosoever within his dominions should be disposed to aid the unfortunate prince in the recovery of his kingdom, might be assured of his free licence and royal favour.

Dermod returned to England highly pleased with the reception he had met with; but notwithstanding the king's letter, none of the English seemed to be disposed to try their fortunes in Ireland. A month elapsed without any prospect of succours, so that Dermod began to despair. At last, however, he persuaded with great promises, Richard earl of Chepstow, or, as it was formerly called, *Strigul*, a nobleman of considerable influence in Wales, but of broken fortune, to assist him with a considerable force to be transported next spring into Ireland. Overjoyed at this first instance of success, he advanced into South Wales, where, by the influence of the bishop of St David's, he procured many other friends. Robert Fitz-Stephen, a brave and experienced officer, covenanted with him to engage in his service with all his followers, and Maurice Fitz-Gerald his maternal brother; while Dermod on his part, promised to cede to the two principal leaders, Fitz-Stephen and Fitz-Gerald, the entire dominion of the town of Wexford, with a large adjoining territory, ss soon as by their assistance he should be reinstated in his rights.

Ireland.

9 Persuades some adventurers to follow him to Ireland.

The Irish prince having now accomplished his purpose, set sail for Ireland in the winter of 1169, and recovered a small part of his dominions even before the arrival of his new allies; but being attacked with a superior force by his old enemies Roderic and O'Ruarc, he found himself obliged to feign submission till the English allies came to his assistance. The expected succours arrived in the month of May 1170, in a creek called the *Bann*, near the city of Wexford. Robert Fitz-Stephen commanded 30 knights, 60 men in armour, and 300 archers. With these came Harvey of Mountmorris, nephew to Earl Richard. He had no military force along with him; but came solely with a view of discovering the nature of the country, and reporting it to his uncle. Maurice of Pendergast commanded 10 knights and 200 archers: and thus the English force, which was to contend with the whole strength of Ireland, amounted to no more than 600 men.

10 Their success.

Trifling as this assistance may seem, it nevertheless changed the face of affairs almost instantaneously. Numbers of Dermod's subjects who had abandoned him in his distress, now flocked to his standard. Wexford was immediately attacked, and surrendered in a few days; Fitz-Stephen and Fitz-Gerald were jointly invested with the lordship of this city and its domain; and Harvey of Mountmorris was declared lord of two considerable districts on the coast. After three or four weeks spent in feasting and rejoicing, a new expedition was undertaken against the prince of Ossory (a district of Leinster), who had not only revolted from Dermod, but put out the eyes of one of his sons, and that with such cruelty, that the unhappy youth expired under the operation. The allied army was now increased to 3000 men, who were opposed by the prince of Ossory at the head of 5000, strongly entrenched among woods and morasses. By the superior conduct of the English troops, however, the Irish were decoyed from their advantageous situation, and thus were entirely defeated. The English were for keeping the field till they had totally reduced their enemies: but Dermod, accustomed only to ravage and plunder, contented himself with destroying the country: and a sudden reverse of fortune seemed ready to take place. The prince of Ossory, though defeated, still appeared in arms, and only waited for an opportunity of again opposing the enemy in the field. Maurice Pendergast also joined him with his whole troop, being provoked by Dermod, who had refused him leave to return to Wales. This defection, however, was in part supplied by the arrival

Ireland. arrival of Fitz-Gerald with 10 knights, 30 horsemen, and 100 archers. Pendergast in a short time repented of his new alliance, and retired into Wales; so that the prince was obliged to make his submission to Dermod, which the latter with some reluctance accepted.

In the mean time, Roderic, having settled all his other affairs, advanced against the allies with a powerful army. Dermod was thrown into despair; but encouraged by Fitz-Stephen, he encamped in a very strong situation, where he was soon besieged by Roderic. The latter, however, dreading the valour of the English, condescended to treat first with them, and then with Dermod, in order to detach them from the interests of each other: but as this proceeded evidently from fear, his offers were rejected by both parties; upon which he began to prepare for battle: but at the very time when the engagement should have commenced, either through the suggestions of his clergy, or of his own fears, Roderic entered into a new negociation; which at last terminated in a peace. The terms were, that Dermod should acknowledge the supremacy of Roderic, and pay him such service as the monarchs of Ireland had usually received from inferior princes; and as a security for his faithful performance of this article, he delivered up his favourite son as an hostage to Roderic: but in order to establish this accommodation on the firmest basis, the latter obliged himself to give his daughter in marriage to the young prince as soon as Leinster should be reduced, and the peace of the island effectually restored. By a secret article, Dermod engaged to dismiss the British forces immediately after the settlement of his own province, and in the mean time not to bring over any further reinforcements from England.

11 Peace concluded.

Thus ended the first British expedition into Ireland; the consequences of which were so little dreaded at that time by the natives, that their historians, though they dwell upon the principal wars and contests in other parts of the island, speak of the settlement of the Welshmen in Leinster with a careless indifference. But though the settlement of this colony seemed very little alarming to the generality, it could not escape the observation of discerning persons, that a man of Dermod's character would not long keep his treaties; and that on the first emergency he would have recourse to his former allies, who would thus establish themselves more and more, till at last they would reduce the country entirely under their subjection. These reflections, if any such were then made, were in a short time verified. Dermod was scarce settled in his own dominions, when he began to aspire at the sovereignty, and form schemes for dethroning Roderic. He applied to Fitz-Stephen and Fitz-Gerald; by whom he was again directed to apply to Richard earl of Chepstow, more commonly known by the name of *Strongbow*, on account of his feats of archery. Richard was very much inclined to accept of his invitation; but thought it incumbent upon him first to obtain the consent of King Henry. The king, however, did not incline that his subjects should make conquests for themselves in any other country, and therefore dismissed Richard with an equivocal answer; but the latter being willing to understand his sovereign's words in the most favourable sense, immediately set about the necessary preparations for his expedition. In May 1171, Raymond le Gros, Richard's domestic friend, and the near relation of Fitz-Stephen and Fitz-Gerald, landed at a place called *Dondonalf*, near Waterford, with 10 knights and 70 archers; and along with them came Harvey of Mountmorris, attended by a small train. The English immediately intrenched themselves, and erected a temporary fort for themselves: which proved a very necessary precaution; for the natives, justly attributing this new debarkation to the practices of Dermod, instantly formed a tumultuous army, and marched to expel the invaders. The English prepared to meet them; but when they perceived the great superiority of the enemy, they thought proper to retire to the fort. Here, however, they must have been totally cut off, had they not luckily collected a numerous herd of cattle from the neighbouring country for their subsistence. These they drove with fury among the Irish, who were thus put into the utmost confusion. The invaders seized the favourable moment; and, falling upon their disordered enemies, put them to flight, and drove great numbers of them into the sea, where they perished. Seventy prisoners were taken, all of them principal citizens of Waterford; who, though they offered large sums for their ransom, and even that the city should be delivered up to the English, were all barbarously put to death. This success and cruelty so intimidated the Irish, that they suffered these merciless invaders to maintain their station unmolested, and wait for the arrival of their associates.

Ireland.

13 A new body of English arrive in Ireland.

14 Their success and cruelty.

Richard in the mean time having assembled his vassals, led them through Wales, where he was joined by great numbers of other adventurers; but, when just on the point of embarking, was surprised by a positive command by the king, to desist from his intended enterprise, on pain of forfeiture of his lands and honours. He was now, however, too much interested in his scheme to retract; and therefore pretended to disbelieve the authenticity of the royal mandate. On the eve of the feast of St Bartholomew, he landed at Waterford with 200 knights and 1200 infantry, all chosen and well appointed soldiers. They were immediately joined by Raymond and his troop; and the very next day it was resolved to make an attempt upon Waterford. The city was taken by storm, and a dreadful massacre ensued; to which the cruel Dermod had the merit of putting an end. The marriage of Richard with Eva, the daughter of Dermod, was solemnized without delay, and a scene of joy and festivity succeeded the calamities of war.

15 Earl Richard arrives with a powerful reinforcement.

12 New machinations of Dermod.

A new expedition was now undertaken against Dublin; the inhabitants of which had either manifested some recent disaffection to Dermod, or had never been thoroughly forgiven for their old defection. Roderic advanced against the allied army with a formidable body, consisting, as is said, of 30,000 men; but, fearing to come to a general engagemant, he contented himself with some slight skirmishes; after which, great part of his vassals forced him to dismiss them, and Dublin was left to its fate. The inhabitants were treated very severely; however, a considerable body of them, with Hesculph their governor, had the good fortune to gain some vessels lying in the harbour, and made their escape to the northern islands. Earl Richard was now invested with the lordship of Dublin;

 Dublin; and appointed Milo de Cogan, a brave English knight, his governor; while he himself, in conjunction with the forces of Dermod, overran the country of Meath, committing everywhere the most horrid croelties. Roderic, in the mean time, unable to oppose them in the field, sent deputies to Dermod, commanding him to retire, and putting him in mind that his son was in his hands, and must answer with his life for the breach of those treaties which his father made so little scruple to violate. Natural affection, however, had very little place in the breast of Dermod. He expressed the utmost indifference about his son; and, with the greatest arrogance, claimed the sovereignty of all Ireland; Roderic, provoked at this answer, cut off the young prince's head.

This piece of impotent cruelty served only to make the king odious to his own subjects, while Dermod and his English allies committed everywhere the greatest devastations, and threatened to subdue the whole island. This indeed they would probably have accomplished, had not the extraordinary success of Strongbow alarmed King Henry; who, fearing that he might render himself totally independent on the crown of Britain, issued his royal edict, strictly forbidding any English vessel from passing into Ireland with men, arms, or provisions; and commanding all his subjects at that time resident in Ireland, of whatever rank or degree, to return to their country before the ensuing feast of Easter, on pain of forfeiting their lands, and being declared traitors.

16 All the adventurers recalled by the king.

Our adventurers were plunged into the greatest distress by this peremptory edict. They now found themselves cut off from all supplies in the midst of their enraged enemies, and in danger of being forsaken by those who had attached themselves to them during their success. Raymond was dispatched with a most submissive message to the offended monarch; but before he received any favourable answer, every thing was thrown into confusion by the death of Becket *, so that the king had neither leisure nor inclination to attend to the affairs of Ireland. About the same time the death of Dermod their great ally seemed almost to give a finishing stroke to the English affairs. An universal defection took place among their associates; and before they had time to concert any proper measures, Hesculph, who had formerly escaped from Dublin, appeared before that city with a formidable body of troops armed after the Danish manner. A furious attack ensued; which at last ended in the defeat and captivity of Hesculph, who was immediately put to death. This danger, however, was soon followed by one still greater. Roderic had formed a powerful confederacy with many of the Irish chieftains, and the kings of the northern isles, in order to extirpate the English totally from the island. The harbour of Dublin was blocked up by a fleet of 30 ships from the northern isles; while the confederated Irish took their stations in such a manner as to surround the city, and totally cut off all supplies of provisions. In two months time the English were reduced to great straits. On the first alarm, Richard had sent for assistance to Fitz-Stephen; who having weakened his own force, in order to serve the earl, the people of Wexford had risen and besieged Fitz-Stephen in his fort called *Carrig*, near that city. A messenger now arrived, informing Stronghow that his friend was in the utmost danger, and must fall into the hands of his enemies if not assisted within three days; upon which a council of war was called, in order to deliberate on the measures necessary to be pursued in this desperate emergency. It was soon resolved to enter into a treaty with Roderic upon any terms that were not totally servile or oppressive. Laurence prelate of Dublin was appointed to carry the terms; which were, that Richard proposed to acknowledge Roderic as his sovereign, and to hold the province of Leinster as his vassal, provided he would raise the siege. Laurence soon returned with an answer, probably of his own framing; namely, that Dublin, Waterford, Wexford, and all the forts possessed by the British, should be immediately given up; and that the earl and his associates should depart with all their forces by a certain day, leaving every part of the island free from their usurpations, and absolutely renouncing all their pretended claims. On these conditions they were to be spared; but the least reluctance or delay would determine the besiegers to storm the city.

These terms, though they contained nothing insolent or unreasonable, considering the present situation of the English, were yet intolerable to our indigent adventurers. After some time spent in silence, Milo de Cogan, suddenly starting up, declared his resolution to die bravely rather than submit to the mercy of barbarians. The spirit of desperate valour was instantly caught by the whole assembly; and it was resolved to risk their whole fortune on one desperate effort, by sallying out against the enemy, and to make their attack upon that quarter where Roderic himself commanded. Accordingly, having persuaded a body of the townsmen to take part in this desperate enterprise, they marched out against their enemies, who expected nothing less than such a sudden attack. The besiegers were secure and careless, without discipline or order; in consequence of which, they were unable to sustain the furious assault of the English. A terrible slaughter ensued, and the Irish instantly fled in the greatest confusion; their monarch himself escaping only by mixing half naked with the crowd. The other chieftains who were not attacked caught the panic, and broke up their camps with precipitation; while the victors returned from the pursuit to plunder, and among other advantages, gained as much provision as was sufficient to support them for a whole year.

15 They totally defeat their enemies.

Strongbow being thus relieved from his distress, committed the government of Dublin to Milo de Cogan, while he procceded immediately to Wexford, in order to relieve Fitz-Stephen; but in this he was disappointed; for that brave officer, having often repulsed his enemies, was at last treacherously deceived into submission and laid in irons. Strongbow, however, continued to advance; and was again attacked by the Irish, whom he once more defeated. On his arrival at Wexford, he found it burnt to the ground; the enemy having retired with Fitz-Stephen and the rest of the prisoners to Holy Island, a small island in the middle of the harbour, from whence they sent a deputation, threatening to put all the prisoners to death if the least attempt was made to molest them in their present situation. The earl then proceeded to Waterford, and from thence to Ferns; where he for some time exercised a regal authority, rewarding his friends and punishing his enemies.

17 Distress of the English.

* See *England*, N° 119, 120.

A more important object, however, soon engaged his attention. The king of England, having settled his affairs as well as he could, now determined to conquer Ireland for himself. A summons was instantly dispatched to Earl Richard, expressing the greatest resentment at his presumption and disobedience, and requiring his immediate presence in England. The earl found himself under the necessity of obeying; and having made the best dispositions the time would permit for the security of his Irish possessions, embarked for England, and met the king at Newnham, near Gloucester. Henry at first affected great displeasure, but soon allowed himself to be pacified by a surrender of the city of Dublin, and a large territory adjacent, together with all the maritime towns and forts acquired by Strongbow: while on his part he consented that the earl should have all his other possessions granted in perpetuity, to be held of the king and his heirs. The other adventurers made their peace in a similar manner; while the Irish chieftains, instead of uniting in the defence of their country, only thought how to make the most of the approaching invasion, or at least how to avert the threatened evils from their own particular districts. They saw the power of their own sovereign on the point of total dissolution; and they saw it with indifference, if not with an envious and malignant satisfaction. Some were even ready to prevent their invader, and to submit before he appeared on the coast. The men of Wexford, who had possessed themselves of Fitz-Stephen, resolved to avert the consequences of their late perfidy and cruelty, by the forwardness of their zeal for the service of the king of England, and the readiness of their submissions. Their deputies cast themselves at Henry's feet; and, with the most passionate expressions of obedience, humbly intreated that he would accept them as his faithful vassals, ready to resign themselves, their lands, and possessions, to his absolute disposal. "They had already (they said) endeavoured to approve their zeal by seizing Robert Fitz-Stephen, a traitor to his sovereign, who had lately entered their territory by force of arms, without any due warrant or fair pretence, had slaughtered their people, seized their lands, and attempted to establish himself independent of his liege lord.—They kept him in chains, and were ready to deliver him to the disposal of his sovereign."—The king received them with expressions of the utmost grace and favour; commended their zeal in repressing the unwarrantable attempts of Fitz-Stephen; declared that he should soon inquire into his crimes, and the wrongs they had sustained, and inflict condign punishment for every offence committed by his undutiful subjects.—Thus were the Irismen dismissed in the utmost joy and exultation; and the artifice of Henry, while it inspired these men with dispositions favourable to his interests, proved also the most effectual means of saving Fitz-Stephen from their cruelty.

19 Earl Richard summoned to England.

Henry, having completed the preparations necessary for his expedition, embarked at Milford with several of his barons, 400 knights, and about 4000 soldiers, on board a fleet of 240 sail. He landed at Waterford on the feast of St Luke in October 1172, with a professed design not to conquer, but to take possession of a kingdom already his own, as being granted him by the pope. Most of the Irish indeed seemed to be of the same opinion, and therefore submitted without the least resistance. Strongbow set them an example, by making a formal surrender of Waterford, and doing homage to the king for the territory of Leinster. Fitz-Stephen was delivered up, with many accusations of tyranny and injustice. He was at first sent to prison; but soon purchased his liberty, by surrendering Wexford, and doing homage for the rest of his possessions to the king. The prince of Desmond was the first Irish chieftain who submitted. On the very day after the king's arrival, he attended his court, resigned the city of Corke, did him homage, and stipulated to pay a tribute for the rest of his territory. An English governor and garrison were immediately appointed to take possession of his capital; and the king displayed his power and magnificence by marching to Lismore, where he chose a situation and gave the necessary orders for building a fort. The prince of Thomond next submitted and did homage. He was followed by the princes of Ossory, Decies, and all the inferior chiefs of Munster.

20 King Henry lands in Ireland.

21 Many Irish chieftains submit to him.

The king, after having provided for the security of all his newly acquired territories, and put garrisons in the cities of Limerick, Corke, Waterford, and Wexford, proceeded to take possession of Dublin, which had been surrendered by Strongbow. The neighbouring lords took the opportunity of submitting as he advanced. O'Carrol of Argial, a chieftain of great consequence, repaired to his camp, and engaged to become his tributary; and even O'Ruarc, whom Roderic had made lord of a considerable part of Meath, voluntarily submitted to the new sovereign.

22 Roderic still holds out.

Roderic, though surprised at the defection of so many of his allies, still determined to maintain his own dignity, and at least preserve his province of Connaught, seeing he could no longer call himself monarch of the whole island. With this design he entrenched himself on the banks of the Shannon; and now, when disencumbered from a crowd of faithless and discontented followers, he appears to have acted with a spirit and dignity becoming his station. Hugh de Lacey and William Fitz-Andelm were commissioned by the king to reduce him: but Roderic was too strong to be attacked with any probability of success by a detachment from the English army; and he at least affected to believe, that his situation was not yet so totally desperate as to reduce him to the necessity of resigning his dignity and authority, while his own territory remained inviolate, and the brave and powerful chiefs of Ulster still kept retired in their own districts without any thoughts of submission. Henry in the mean time attempted to attach the Irish lords to his interest by elegant and magnificent entertainments, such as to them appeared quite astonishing. Some historians pretend that he established the English laws in all those parts which had submitted to his jurisdiction; but this must appear extremely improbable, when we consider how tenacious a rude and barbarous people are of their ancient laws and customs. The Irish lords had been accustomed to do homage to a superior; and they had made no submission to Henry which they had not formerly done to Roderic, and probably thought their submission to the king of England more honourable than that to their Irish monarchs; and it cannot be supposed, that a wise and politic monarch, such as

Henry

Ireland. Henry undoubtedly was, should form at once such an extravagant scheme as altering the laws of a great number of communities, none of which he had subdued by force of arms. By his transactions both with the natives and adventurers, however, Henry had attained the absolute dominion of several maritime cities and their dependencies; so that he had both a considerable number of real subjects, and a large extent of territory, in the island. To these subjects indeed Henry granted the English laws; and gave the city of Dublin by charter to the inhabitants of Bristol, to be held of him and his heirs, with the same liberties and free customs which they enjoyed at Bristol, and throughout all his land. And, by another charter, executed soon after, he confirmed to his burgesses of Dublin all manner of rights and immunities throughout his whole land of England, Normandy, Wales, and Ireland, wherever they and their effects shall be, to be fully and honourably enjoyed by them as his free and faithful subjects. And as it was not easy to induce his English subjects immediately to settle in these maritime towns, he permitted the Ostmen to take possession of Waterford; and to them he granted a particular right of denization, whereby they were invested with the rights and privileges of free subjects, and for the future to be governed by the laws of his realm. For the better execution of these new laws, the king also made a division of the districts now subject to him into shires or counties; which was afterwards improved and enlarged, as the extension of the English settlements and the circumstances of the country required. Sheriffs were appointed both for the counties and cities, with itinerant judges, and other ministers of justice, and officers of state, and every appendage of English government and law. To complete the whole system, a chief governor, or representative of the king, was appointed. His business was to exercise the royal authority, or such parts of it as might be committed to him in the king's absence; and, as the present state of Ireland, and the apprehensions of war or insurrections, made it necessary to guard against sudden accidents, it was provided, That in case of the death of any chief governor, the chancellor, treasurer, chief-justice, and chief baron, keeper of the rolls, and king's serjeant at law, should be empowered, with consent of the nobles of the land, to elect a successor, who was to exercise the full power and authority of this office, until the royal pleasure should be further known.

13 Henry obliged to leave Ireland. But while Henry was thus regulating the government of his new dominions, he received the unwelcome news, that two cardinals, Albert and Theodine, delegated by the pope, had arrived in Normandy the year before, to make inquisition into the death of Becket; that having waited the king's arrival until their patience was exhausted, they now summoned him to appear without delay, as he would avert the dreadful sentence of excommunication, and preserve his dominions from a general interdict. Such denunciations were of too great consequence to admit of his longer stay in Ireland; he therefore ordered his forces and the officers of his household to embark without delay, reserving three ships for the conveyance of himself and his immediate attendants. Having therefore but a short time to secure his Irish interests, he addressed himself to the original English adventurers, and by grants and promises laboured to detach them from Strongbow, and to bind them firmly to himself. To make amends for what he had taken from Fitz-Stephen, he granted him a considerable district in the neighbourhood of Dublin, to be held by knight's service; at the same time entrusting the maritime towns to his own immediate dependants. Waterford was committed to Humphrey de Bohun, Robert Fitz-Bernard, and Hugh de Gundville, with a train of 20 knights. In Wexford were stationed William Fitz-Andelm, Philip of Hastings, and Philip de Braosa, with a like number of attendants. Hugh de Lacey had a grant of all the territory of Meath, where there was no fortified place, and where of consequence no particular reservation was necessary, to be held of the king and his heirs, by the service of 50 knights, in as full a manner as it had been enjoyed by any of the Irish princes. He also constituted him lord governor of Dublin, with a guard of 20 knights. Robert Fitz-Stephen and Maurice Fitz-Gerald were appointed his coadjutors, with an equal train; and these, with others of the first adventurers, were thus obliged, under the pretence of an honourable employment, to reside at Dublin, subject to the immediate inspection of De Lacey, in whom Henry seems to have placed his chief confidence. Lands were assigned in the neighbourhood of each city for the maintenance of the knights and soldiers. Orders were given to build a castle in Dublin, and fortresses in other convenient places; and to John de Courcey, a baron distinguished by his enterprising genius and abilities for war, was granted the whole province of Ulster, provided he could reduce it by force of arms. Ireland.

24 Disorders ensue on the king's departure. Henry was no sooner gone, than his barons began to contrive how they might best strengthen their own interests, and the Irish how they might best shake off the yoke to which they had so readily submitted. De Lacey parcelled out the lands of Meath to his friends and adherents, and began to erect forts to keep the old inhabitants in awe. This gave offence to O'Ruarc, who still enjoyed the eastern part of this territory as a tributary prince. He repaired to Dublin, in order to obtain redress from Lacey for some injuries real or pretended; but, as the parties could not come to an agreement, another conference was appointed on a hill called *Taragh*. Both parties came with a considerable train of armed followers; and the event was a scuffle, in which O'Ruarc and several of his followers were killed, and which served to render the English not a little odious to the natives.

The spirit of disaffection had soon after an opportunity of showing itself on the rebellion of King Henry's sons, of which an account is given under the article ENGLAND, N° 121, *et seq.* The king had been obliged to weaken his forces in Ireland, by withdrawing several of his garrisons. The soldiers who remained were also discontented with their general Hervey of Mountmorris, on account of his severity in discipline, and restraining them from plunder, to which they imagined themselves entitled on account of the deficiencies of their pay. Raymond le Gros, the second in command, was much more beloved by the soldiery; and to such a height had the jealousies between the commanders arisen, that all effectual op-

position to the Irish chieftains was prevented; and the event might have been fatal to the English interest, had not Henry found out a remedy. He summoned Earl Richard to attend him at Rouen in Normandy, and communicated his intention of committing the affairs of Ireland to his sole direction. The earl expressed the utmost readiness to serve his master; but observed, that he had already experienced the envy and malignity of his secret enemies; that if he should appear in such a distinguished character as that of the king's deputy in Ireland, their insidious practices would be renewed, and his conduct misrepresented.—He therefore requested that a colleague might be appointed in the commission; and recommended Raymond as a person of approved loyalty and abilities, as well as highly acceptable to the soldiery. The king replied, with an affected air of regard and confidence, that he had his free consent to employ Raymond in any service he should deem necessary, not as a colleague, but as an assistant; but that he relied entirely on the earl himself, and implicitly trusted every thing to his direction. To reward his services, he granted him the town of Wexford, together with a fort erected at Wicklow; and then dismissed him with the most gracious expressions of favour.

25 Strongbow the first governer of Ireland.

The earl landed at Dublin, where he was received with all the respect due to the royal commission. He signified the king's pleasure, that Robert Fitz-Bernard, with the garrison of Waterford, should instantly embark and repair to Normandy; that Robert Fitz-Stephen and Maurice Pendergast should attend the service of their sovereign in England; and, agreeably to the king's instructions, took on him the custody of the cities of Dublin, Waterford, and Wexford. Hugh de Lacey and Milo de Cogan were, with the other lords, commanded to repair to England for the service of the king; by which the earl's forces were considerably weakened, and he soon found himself under the necessity of appointing Raymond to the chief command. The new general proved successful in some enterprises against the rebellious Irish; but having presumed upon his merits to demand in marriage Basilia the earl's sister, Richard refused his consent, and Raymond retired into Wales.

Thus the supreme command again devolved upon Hervey of Mountmorris; who, being sensible that his character had suffered much from a comparison with that of Raymond, determined to emulate his successes by some bold attempt against the rebels. A detachmen of 400 of his men, however, had the misfortune to be surprised and cut off by the enemy; and this success served as a signal for a general revolt. Several of the Leinster chieftains, who had lately made their submissions, and bound themselves to the service of King Henry, now openly disclaimed all engagements. Even Donald Kevanagh, son to the late king Dermod, who had hitherto adhered to the English in their greatest difficulties, now declared against them, and claimed a right to the kingdom of Leinster; while Roderic, on his part, was active in uniting the princes of Ulster, the native lords of Meath, and other chiefs, against their common enemy. This produced the immediate recal of Raymond; and Richard no longer refused his consent to the marriage with his sister, which was solemnized immediately on Raymond's arrival. The very next morning, the bridegroom was obliged to take the field against Roderic, who had committed great devastations in Meath. By the vigorous conduct of the English commander, however, he was not only prevented from doing farther mischief, but at last, convinced of the folly of resistance; and therefore determined to make a final submission. Yet, conscious of his dignity, he disdained to submit to a subject; and therefore, instead of treating with Earl Richard, he sent deputies directly to the king. The deputies were, Catholicus archbishop of Tuam, the abbot of St Brandan, and *Master Lawrence* as he is styled, chancellor to the king of Connaught.

26 A general revolt of the Irish.

27 Roderic submits to King Henry.

28 Terms of his submission.

The terms of this submission, by which Henry became sole monarch of Ireland, were as follow: Roderic consented to do homage, and pay tribute, as liegeman to the king of England; on which condition he was allowed to hold the kingdom of Connaught, as well as his other lands and sovereignties, in as ample a manner as he had enjoyed them before the arrival of Henry in Ireland. His vassals were to hold under him in peace, as long as they paid their tribute and continued faithful to the king of England; in which Roderic was to enforce their due obedience, and for this purpose to call to his assistance the English government, if necessary. The annual tribute to be paid was every tenth merchantable hide, as well from Connaught as from the rest of the island; excepting those parts under the immediate dominion of the king of England and his barons, viz. Dublin and Meath with their appurtenances, Wexford and all Leinster, and Waterford with its lands as far as Dungarvan inclusive; in all which districts Roderic was not to interfere, nor claim any power or authority.—The Irish who had fled from these districts were to return, and either pay their tribute, or perform the services required by their tenures, at the option of their immediate lords; and, if refractory, Roderic, at the requisition of their lords, was to compel them to return. He was to take hostages from his vassals, such as he and his liege-lord should think proper; and on his part to deliver either these or others to the king, according to the royal pleasure. His vassals were to furnish hawks and hounds annually to the English monarch; and were not to detain any tenant of his immediate demesnes in Ireland, contrary to his royal pleasure and command. This treaty was solemnly ratified in a grand council of prelates and temporal barons, among whom we find the archbishop of Dublin one of the subscribing witnesses. As metropolitan of Leinster, he was now become an English subject, and was probably summoned on this occasion as one obliged to attend, and who had a right to assist in the king's great council. It is also observable, that Henry now treated with Roderic not merely as a provincial prince, but as a monarch of Ireland. This is evidently implied and supposed in the articles; although his monarchical powers and privileges were little more than nominal, frequently disregarded and opposed by the Irish toparchs. Even by their submissions to Henry, many of them in effect disavowed and renounced the sovereignty of Roderic; but now his supremacy seems to be industriously acknowledged, that the present submission might appear virtually the submission of all the subordinate princes, and thus the king

Ireland. king of England be invested with the sovereignty of the whole island. The marks of sovereignty, however, were no more than homage and tribute; in every other particular the regal rights of Roderic were left inviolate. The English laws were only to be enforced on the English pale: and, even there, the Irish tenant might live in peace, as the subject of the Irish monarch; bound only to pay his quota of tribute, and not to take arms against the king of England.

But though the whole island of Ireland thus became subject to the king of England, it was far from being settled in tranquillity, or indeed from having the situation of its inhabitants mended almost in any degree. One great occasion of disturbance was, that the English laws were confined only to those parts which had been subdued by force of arms: while the chieftains that had only submitted to pay tribute, were allowed to retain the ancient Irish laws within the limits of their own jurisdictions. By these old Irish laws, many crimes accounted capital with us, such as robbery, murder, &c. might be compensated by a sum of money. Hence it happened, that very unequal punishments were inflicted for the same offence. If one Englishman killed another, he was punished with death; but if he killed an Irishman, he was punished only by a fine. If an Irishman, on the other hand, killed an Englishman, he was certainly punished with death: and as in times of violence and outrage, the crime of murder was very frequent, the circumstance just mentioned tended to produce an implacable hatred between the original inhabitants and the English. As the Irish laws were thus more favourable to the barbarity natural to the tempers of some individuals, many of the English were also tempted to lay aside the manners and customs of their countrymen altogether, and to associate themselves with the Irish, that, by becoming subject to their laws, they might thus have an opportunity of gratifying their brutal inclinations with less controul than formerly; and in process of time, these *degenerate English*, as they were called, proved more bitter enemies to their countrymen than even the Irish themselves.

29 Causes of the subsequent distresses of Ireland.

Another cause of the distresses of Ireland was, the great power of the English barons, among whom Henry had divided the greatest part of his Irish dominions. The extent of their authority only inflamed them with a desire for more; and, instead of contributing their endeavours to increase the power of their sovereign, or to civilize the barbarous people over whom they were placed, they did every thing in their power to counteract and destroy each other. Henry himself, indeed, seems to have been infected with a very fatal jealousy in this respect; for, though the abilities and fidelity of Raymond had abundantly manifested themselves, the king never could allow himself to continue him in the government of the island: and the consequence of degrading him never failed to be a scene of uproar and confusion. To these two reasons we must likewise add another: namely, that in those parts of the kingdom where the Irish chieftains enjoyed the sovereignty, they were at full liberty to make war upon each other as formerly, without the least restraint. This likewise induced many of the English to degenerate, that they might have an opportunity of sharing the plunder got by these petty wars; so that, on the whole, the island was a perpetual scene of horror, almost unequalled in the history of any country. Ireland.

After the death of Earl Richard, Raymond was immediately elected to succeed him; but was superseded by the king, who appointed William Fitz-Andelm, a nobleman allied to Raymond, to succeed in his place. The new governor had neither inclination nor abilities to perform the task assigned to him. He was of a rapacious temper, sensual and corrupt in his manners; and therefore only studied to enrich himself. The native Irish, provoked by some depredations of the English, commenced hostilities: but Fitz-Andelm, instead of repressing these with vigour in the beginning, treated the chieftains with affected courtesy and flattery. This they had sufficient discernment to see, and to despise; while the original adventurers had the burden of the whole defence of the *English pale*, as the English territories were called, thrown upon them, at the same time that the bad conduct of the governor was the cause of perpetual disorders. The consequence of this was, that the lords avowed their hatred of Fitz-Andelm: the soldiers were mutinous, ill-appointed, and unpaid: and the Irish came in crowds to the governor with perpetual complaints against the old adventurers, which were always decided against the latter; and this decision increased their confidence, without lessening their disaffection. 30 Fitz-Andelm's bad government.

In this unfavourable state of affairs, John de Courcey, a bold adventurer, who had as yet reaped none of the benefits he expected, resolved to undertake an expedition against the natives, in order to enrich himself with their spoils. The Irish at that time were giving no offence; and therefore pleaded the treaty lately concluded with King Henry: but treaties were of little avail, when put in competition with the necessities of an indigent and rapacious adventurer. The consequence was, that the flame of war was kindled through the whole island. The chieftains took advantage of the war with the English, to commence hostilities against each other. Desmond and Thomond, in the southern province, were distracted by the jealousies of contending chiefs, and the whole land was wasted by unnatural and bloody quarrels. Treachery and murder were revenged by practices of the same kind, in such a manner as to perpetuate a succession of outrages the most horrid and the most disgraceful to humanity. The northern province was a scene of the like enormities; though the new English settlers, who were considered as a common enemy, ought to have united the natives among themselves. All were equally strangers to the virtues of humanity; nor was religion, in the form it then assumed, capable of restraining these violences in the least.

Ireland was thus in a short time reduced to such a state, that Henry perceived the necessity of recalling Fitz-Andelm, and appointing another governor. He was recalled accordingly; and Hugh de Lacey appointed to succeed him. He left his government without being regretted, and is said by the historians of those times to have done only one good action during the whole course of his administration. This action was nothing more important, than the removing of a relick, called the *staff of Jesus*, from the cathedral of Armagh to that of Dublin; probably that it might 31 He is superseded by Hugh de Lacey.

Ireland.

be in greater safety, as the war raged violently in Ulster. De Lacy, however, was a man of a quite different disposition, and every way qualified for the difficult government with which he was invested: but at the same time, the king, by investing his son John with the lordship of Ireland, gave occasion to greater disturbances than even those which had already happened. The nature of this lordship hath been much disputed; but the most probable opinion is, that the king's son was now to be invested with all the rights and powers which had formerly belonged to Roderic, who was allowed the title of *king of Ireland*. It doth not appear, indeed, that Henry had any right to deprive Roderic of these powers, and still less had he to dispose of any of the territories of those chieftains who had agreed to become his tributaries; which nevertheless he certainly did, and which failed not to be productive of an immediate war with these chiefs.

32 Prince John made lord of Ireland.

The new governor entered on his office with all that spirit and vigour which was necessary; but being misrepresented to the king by some factious barons, he was in a short time recalled, and two others, totally unfit for the government, appointed in his room. This error was soon corrected, and Lacey was replaced in three months. The same jealousy which produced his first degradation, soon produced a second; and Philip de Braosa, or *Philip of Worcester* as he is called, a man of a most avaricious disposition, was appointed to succeed him. This governor behaved in such a manner, that his superstitious subjects expected every moment that the vengeance of heaven would fall upon him, and deliver them from his tyranny. His power, however, was of short duration; for now Prince John prepared to exercise the authority with which his father had invested him in Ireland. He was attended by a considerable military force: his train was formed of a company of gallant Normans in the pride of youth; but luxurious, insolent, and followed by a number of Englishmen, strangers to the country they were to visit, desperate in their fortunes, accustomed to a life of profligacy, and filled with great expectations of advantage from their present service. The whole assembly embarked in a fleet of 60 ships; and arrived at Waterford after a prosperous voyage, filling the whole country with the greatest surprise and expectation.

33 His indiscretion.

The young prince had not arrived at the years of discretion; nor indeed, from his subsequent conduct, doth it appear that his disposition was such as qualified him in the least for the high dignity to which he was raised. The hardy Welshmen who first migrated into Ireland, immediately waited upon him to do him homage; but they were disagreeable to the gay courtiers, and to the prince himself, who minded nothing but his pleasures. The Irish lords were at first terrified by the magnificent representation of the force of the English army; and being reconciled to submission by the dignity of the prince's station, hastened in crowds to Waterford to do him homage. They exhibited a spectacle to the Norman courtiers, which the latter did not fail to treat with contempt and ridicule. The Irish lords, with uncouth attire, thick bushy beards, and hair standing on end, advanced with very little ceremony; and, according to their own notions of respect, offered to kiss the young prince. His attendants stepped in, and prevented this horrid violation of decorum by thrusting away the Irishmen. The whole assembly burst into peals of laughter, pulled the beards, and committed several other indignities on the persons of their guests; which were immediately and severely resented. The chieftains left the court, boiling with indignation; and meeting others of their countrymen hastening to do homage to the prince, they informed them of the reception they themselves had met with. A league was instantly formed to extirpate the English, and the whole nation flew to arms; while John and his courtiers, instead of opposing the enemy, employed themselves in harassing and oppressing those who were under their immediate jurisdiction. The country was therefore overrun by the barbarians, agriculture entirely neglected, and a dreadful famine threatened to follow the calamities of war.

Ireland.

34 A general revolt.

This terrible devastation had continued for eight months before the king was fully acquainted with it. He then determined to recal his son; but was at a loss whom he should name for his successor. Lacey had been murdered by an Irish peasant, and the king was at last obliged to have recourse to John de Courcey, whose boisterous valour seemed now to be absolutely necessary to prevent the English from being totally exterminated. The new governor was obliged at first to act on the defensive; but as the enemies soon forgot the league, and began their usual hostilities against each other, he was at last enabled to maintain the authority of the English government, and to support their acquisitions in Ireland, though not to extend them.

35 Suppressed by John de Courcey.

In this situation were the affairs of Ireland when Henry II. died, and was succeeded by his son Richard I. The new king was determined on an expedition to the holy land, which left him no leisure to attend to the affairs of Ireland. John, by virtue of the powers granted him by his father, took upon him the management of Irish affairs; and immediately degraded De Courcey from his government, appointing in his place Hugh de Lacey the younger. De Courcey, provoked at this indignity, retired into Ulster, where he was immediately engaged in a furious war with the natives, and at last almost entirely detached himself from the English government. The greatest confusion ensued: Hugh de Lacey was recalled from his government, and William Petit earl marshal of England appointed in his place. Petit's administration proved more unfortunate than that of any of his predecessors. Confederacies everywhere took place against the English; the latter were everywhere defeated, their towns taken; and their power would certainly have been annihilated, had not the Irish, as usual, turned their arms against each other.

36 Miserable state of Ireland under Richard I.

In this desperate situation matters continued during the whole reign of King Richard, and part of the reign of John, while the distresses of the country were increased by the dissensions and disaffection of the English lords, who aspired at independency, and made war upon each other like Irish chieftains. The prudent conduct of a governor named *Meiler Fitz-Henry*, however, at last put an end to these terrible commotions; and about the year 1208, the kingdom was more quiet than it had been for a long time before. In 1210, John came over to Ireland in person with an army,

37 Somewhat better under John.

Ireland.

army, with a design, as he said, to reduce his refractory nobles to a sense of their duty. More than 20 Irish chiefs waited upon him immediately to do him homage; while three of the English barons, Hugh and Walter de Lacey and William de Braosa, fled to France. The king, at the desire of his Irish subjects, granted them, for their information, a regular code and charter of laws, to be deposited in the exchequer of Dublin, under the king's seal. For the regular and effectual execution of these laws, besides the establishment of the king's courts of judicature in Dublin, there was now made a new and more ample division of the king's lands of Ireland into counties, where sheriffs, and many other officers, were appointed. These counties were, Dublin, Meath, Kildare, Argial, now called *Lowth*, Katherlagh, Kilkenny, Wexford, Waterford, Cork, Kerry, Limeric, Tipperary; which marks the extent of the English dominions at this time as confined to a part of Leinster and Munster, and to those parts of Meath and Argial which lie in the province of Ulster as now defined. Before his departure, the king gave liberty to John de Grey, bishop of Norwich, whom he appointed governor, to coin money of the same weight with that of England; and which, by royal proclamation, was made current in England as well as Ireland.

This ecclesiastical governor is said to have managed affairs so happily, that during the violent contests between John and his barons, Ireland enjoyed an unusual degree of tranquillity. We are not to imagine, however, that this unhappy country was at this or indeed any other period, till the end of Queen Elizabeth's reign, perfectly free from disorders, only they were confined to those districts most remote from the English government. In 1219, the commotions were renewed, through the immeasurable ambition and contentions of the English barons, who despised all controul, and oppressed the inhabitants in a terrible manner. The disorders in England during the reign of Henry III. encouraged them to despise the royal authority; they were ever the secret enemies, and sometimes the avowed adversaries, of each other; and in many places where they had obtained settlements, the natives were first driven into insurrections by their cruelty, and then punished with double cruelty for their resistance. The English laws, which tended to punish the authors of these outrages, were scorned by an imperious aristocratic faction, who, in the frenzy of rapine and ambition, trampled on the most salutary institutions. In 1228, a remonstrance was presented to the king against this dangerous neglect and suspension of the laws; which he answered by a mandate to the chief governor, directing that the whole body of nobility, knights, free tenants, and bailiffs of the several counties, should be convened; that the charter of English laws and customs received from King John, and to which they were bound by oath, should be read over in their presence; that they should be directed for the future strictly to observe and adhere to these; and that proclamation should be made in every county of Ireland, strictly enjoining obedience, on pain of forfeiture of lands and tenements. How little effect was produced by this order, we may learn from another, dated in 1246; where the barons are commanded, for the peace and tranquillity of the land, to *permit* it to be governed by the laws of England.

38 Relapses into its former state under Henry III.

Ireland.

Nothing indeed can be conceived more terrible than the state of Ireland during the reign of Henry III. People of all ranks appear to have been sunk in the lowest degree of depravity. The powerful English lords not only subverted the peace and security of the people, by refusing to admit the salutary laws of their own country, but behaved with the utmost injustice and violence to the natives who did not enjoy the benefits of the English constitution. The clergy appear to have been equally abandoned with the rest: nor indeed could it be otherwise; for through the partialities of Henry himself, the neglected, the worthless, and the depressed among the English clergy, found refuge in the church of Ireland. What were the manners of these clergy, will appear from the following petition of a widow to King Edward I.

39 Excessive depravation of manners.

"Margaret le Blunde, of Cashel, petitions our lord the king's grace, that she may have her inheritance which she recovered at Clonmell before the king's judges, &c. against David Macmackerwayt bishop of Cashel.

"*Item*, the said Margaret petitions redress on account that her father was killed by the said bishop.

"*Item*, for the imprisonment of her grandfather and mother, whom he shut up and detained in prison until they perished by famine, because they attempted to seek redress for the death of their son, father of your petitioner, who had been killed by the said bishop.

"*Item*, for the death of her six brothers and sisters, who were starved to death by the said bishop, because he had their inheritance in his hands at the time he killed their father.

"And it is to be noted, that the said bishop had built an abbey in the city of Cashel, on the king's lands granted for this purpose, which he hath filled with robbers, who murder the English, and depopulate the country; and that when the council of our lord the king attempts to take cognizance of the offence, he fulminates the sentence of excommunication against them.

"It is to be noted also, that the said Margaret has five times crossed the Irish sea. Wherefore, she petitions for God's sake, that the king's grace will have compassion, and that she may be admitted to take possession of her inheritance.

"It is further to be noted, that the aforesaid bishop hath been guilty of the death of many other Englishmen besides that of her father; and that the aforesaid Margaret hath many times obtained writs of our lord the king, but to no effect, by reason of the influence and bribery of the said bishop.

"She further petitions, for God's sake, that she may have costs and damages," &c.

40 Little alteration under Edward I.

Matters continued in the same deplorable state during the reign of Edward I. with this additional grievance, that the kingdom was infested by invasions of the Scots. The English monarch indeed possessed all that prudence and valour which were necessary to have reduced the island to a state of tranquillity; but his project of conquering Scotland left him but little leisure to attend to the distracted state of Ireland. Certain it

is,

Ireland. is, however, that the grievous distress of that country gave him great uneasines; so that he transmitted his mandate to the prelates of Ireland, requiring them to interpose their spiritual authority for composing the public disorders. About the same time, the Irish who lay contiguous to the English, and who dwelt among them, presented a petition to the king, offering to pay him 8000 merks, upon condition that they were admitted to the privileges of English subjects. To this petition he returned a favourable answer; but his good intentions were defeated by the licentious nobility, who knew that these laws would have circumscribed their rapacious views, and controuled their violence and oppression. Petitions of the same kind were several times repeated during this reign, but as often defeated; though some means were used for the peace of the kingdom, such as the frequent calling of parliaments, appointing sheriffs in some new counties, &c.

These means were not altogether without effect. They served to give some check to the disorders of the realm, though by no means to terminate or subdue them. The incursions of the natives were repressed, and the English lords began to live on better terms with each other; and, in 1311, under Edward II. the most powerful of them were reconciled by the marriage of Maurice and Thomas Fitz-John, afterwards the heads of the illustrious houses of Desmond and Kildare, to two daughters of the earl of Ulster. But just at this happy period, when the nation seemed to have some prospect of tranquillity, more dreadful calamities than any hitherto related were about to take

41 Invasion of the Scots in the reign of Edward II.

place. The Scots had just recovered their liberty under Robert Bruce, and were now in no danger of being again enslaved by a foreign power. Edward, the king's brother, as a recompense for his services, demanded a share of the royal authority. This was refused by Robert, and Edward was for the present satisfied by being declared heir apparent to the crown. But the king, wisely considering the necessity of finding out some employment for a youth of such an aspiring and ambitious disposition, pointed out to his brother the island of Ireland, the conquest of which would be easy on account of the distracted state in which it almost always was, and which would make him an independent sovereign. This proposal was eagerly embraced by Edward, and every thing necessary for the expedition immediately got ready. On the 25th of May 1315, he landed on the north-eastern coast of Ireland with 6000 men, to assert his claim to the sovereignty of this kingdom. The Irish lords of Ulster, who had invited and encouraged him to this enterprize, were now prepared to receive their new monarch, flocked with eagerness to his standard, and prepared to wreak their vengeance on the common enemy. Their progress was marked by desolation and carnage. The English settlers were slaughtered, or driven from their possessions, their castles levelled with the ground, and their towns set on fire. The English lords were neither prepared to resist the invasion, nor sufficiently united among themselves. The consequence was, that the enemy for some time met with no interruption. An intolerable scarcity of provisions, however, prevented Bruce from pursuing his advantages; and though his brother landed in Ireland with a powerful army, the famine prevented him from being of any essential service. The forces which he left behind him, however, proved of considerable advantage; and by means of this reinforcement, he was enabled to take the city of Carrickfergus. Ireland.

The terrible devastations committed by Bruce and his associates, now induced some English lords to enter into an association to defend their possessions, and repel these invaders. For this purpose they raised a considerable body of forces; which coming to an engagement with Fedlim, prince of Connaught, one of Bruce's principal allies, entirely defeated and killed him with 8000 of his men. This defeat, however, had very little effect on the operations of Bruce himself. He ravaged the country to the walls of Dublin, traversed the district of Ossory, and penetrated into Munster, destroying every thing with fire and sword. The English continued to augment their army, till at last it amounted to 30,000 men; and then Bruce, no longer able to oppose such a force, found it necessary to retire into the province of Ulster. His retreat was effected with great difficulty; and during the time of his inactivity, the distresses of his army increased to such a degree, that they are said to have fed upon the bodies of their dead companions. At last an end was put to the sufferings and the life of this adventurer in

42 They are totally defeated.

the battle of Dundalk, in 1318, where he was defeated and killed by the English under Sir Robert Birmingham. A brave English knight, named *Maupas*, had rushed forward to encounter Bruce himself, and both antagonists had killed each other; the body of Maupas being found, after the battle, stretched upon that of Bruce. The king of Scotland had been advancing with powerful succours to his brother: but Edward, confident of victory, refused to wait his arrival; and Robert, on hearing of his brother's death, instantly retired.

The defeat of the Scottish invaders did not put an end to the disturbances of this unhappy country. The contentions of the English with one another, of the Irish with the English, and among themselves, still kept the island in a state of the utmost barbarity and confusion. An attempt was made indeed, in the reign of Edward II. to establish an university in Dublin; but for want of proper encouragement the institution for some time languished, and then expired amidst the confusion and anarchy of the country. The reign of Edward III. proved not much more favourable than

43 Miseries of the Irish under Edward III.

preceding times had been. He was too much taken up with the idea of conquering France, to pay much regard to the interests of Ireland. The unhappy people, indeed, sensible of their own miseries, petitioned the king to admit all his subjects in Ireland to a participation of the English laws; but the petition being delivered as usual to the chief governor, and laid before the parliament, it was either clandestinely defeated, or openly rejected. A new scene of tumult and bloodshed immediately ensued; which at last produced an order from the king, prohibiting all Irishmen, or Englishmen married and having estates in Ireland, from bearing any public office whatever.—This, instead of having a tendency to promote peace, made the disorder much greater than before; and at last produced a remonstrance from the states met at Kilkenny, in which they grievously complain not only

of

Ireland.

of the disorders of the kingdom, but also of the conduct of the king himself in the edict above mentioned: and to this remonstrance the king thought proper to give a gracious and condescending answer, in order to procure from Ireland the succours he wanted in his expedition against France.

It is not to be supposed, that mere promises, unassisted by any vigorous exertion, could make the least alteration in the state of a kingdom involved in so much misery. The disorders, however, at last became insupportable to the inhabitants themselves; and a parliament was summoned in 1368, the result of which was the famous statute of Kilkenny. The preamble to this act recites, that the English had become mere Irish in their language, names, apparel, and manner of living; had rejected the English laws, and submitted to those of the Irish, with whom they had united by marriage-alliance, to the ruin of the commonwealth. 44 Statute of Kilkenny. —It was therefore enacted, that marriage, nurture of infants, &c. with the Irish, should be considered and punished as high treason.—Again, if any man of English race shall use an Irish name, the Irish language, or the Irish apparel, or any mode or custom of the Irish, the act provides, that he shall forfeit lands and tenements, until he hath given security in the court of chancery to conform in every particular to the English manners; or if he have no lands, that he shall be imprisoned till the like security be given. The Brehon law was pronounced to be a pernicious custom and innovation lately introduced among the English subjects; and it was therefore ordained, that in all their controversies they should be governed by the common law of England; and that whoever should submit to the Irish jurisdiction should be adjudged guilty of high treason. As the English had been accustomed to make war or peace with the bordering Irish at pleasure, they were now expressly prohibited from levying war without special warrant from the state.—It was also made highly penal for the English to permit their Irish neighbours to graze their lands, to present them to ecclesiastical benefices, or to receive them into monasteries or religious houses; to entertain their bards, who perverted their imaginations by romantic tales, or their news-tellers, who seduced them by false reports.—It was made felony to impose or cess any forces upon the English subject against his will. And as the royal liberties and franchises were become sanctuaries for malefactors, express power was given to the king's sheriffs to enter into all franchises, and there to apprehend felons and traitors.—Lastly, because the great lords, when they levied forces for the public service, acted with partiality, and laid unequal burdens upon the subjects, it was ordained that four wardens of the peace in every county should adjudge what men and armour every lord or tenant should provide.—The statute was promulged with particular solemnity; and the spiritual lords, the better to enforce obedience, denounced an excommunication on those who should presume to violate it in any instance.

This statute, it is evident, could not tend to promote the peace of the kingdom. This could only have been done by removing the animosity between the native Irish and English; but so far was the statute of Kilkenny from having any tendency of this kind, that it manifestly tended to increase the hatred between them. Ireland. During the whole of this reign, therefore, the state of the Irish government continued to be greatly disordered and embroiled. The English interest gradually declined; and the connections of the king's subjects with the original inhabitants, occasioned by their vicinity and necessary intercourse, in despite of all legal injunctions, obliged the king to relax the severity of the statutes of Kilkenny, in cases where they proved impracticable, or oppressive in the execution. The perpetual hostility, however, in which the different parties lived, proved an effectual bar to the introduction of those arts which contribute to the comfort and refinement of mankind. Even foreign merchants could not venture into such a dangerous country without particular letters of protection from the throne. The perpetual succession of new adventurers from England, led by interest or necessity, served only to inflame dissension, instead of introducing any essential improvement. Lawyers sent from England were notoriously insufficient, if not corrupt; and, as such, had frequently been the objects of complaint. The clergy were a mean grovelling race, totally influenced by the crown. Even prelates were commonly made the inferior agents of government in collecting forces, and raising war against the Irish enemy; but were not to be enticed into this service, except by remittances from the exchequer. Attendance in parliament they dreaded as the greatest hardship; and either recurred to mean excuses to avert the penalty of absence, or sued to the king to be exempted by patent from contributing or assenting to those laws by which they were to be governed.

In this deplorable situation the kingdom continued till the time of Henry VII. who laid the foundation of the future civilization of the Irish, as he also did of the English nation. This he effected by enacting some salutary laws, and appointing faithful and active governors to see them put in execution. Of these governors Sir Edward Poyning contributed more than any other to the tranquillity of the state. During his administration was enacted the law known by the name of *Poyning's Law*, and which hath since been the subject of much political debate. The purport of it was, That no parliament should be held in that island without first giving notice to the king of England, and acquainting him with the acts to be passed in that parliament: neither should any act passed, or any parliament held, without the approbation of the king and council, be deemed valid. Thus was the power of the turbulent barons greatly broken; and the governor, not having it in his power to assemble parliaments when he pleased, became a person of much less consequence. The whole Irish legislation also became dependent on that of England, and hath ever since continued to be so.

45 Power of the English revives under Henry VII.

46 Poyning's law.

From this time we may date the revival of the English power in Ireland; which from the Scottish war in the time of Edward II. had gradually declined into a miserable and precarious state of weakness. The authority of the crown, which had at last been defied, insulted, and rejected, even in the English territory, was restored and confirmed, and the rebellious vigorously opposed and suppressed. The seignory of the British crown over the whole body of the Irish, which

in

Ireland. in former reigns seemed to have been totally forgotten, was now formally claimed and asserted, and some of the most ferocious chieftains by their marriage-connections became the avowed friends of the English power. An ignominious tribute, called the *Black Rent*, was indeed still paid to some chieftains; but their hostilities were opposed and chastised, and even in their own districts they were made to feel the superiority of English government.

During the reign of Henry VIII. the Irish affairs were neglected; and the disorders, which had only been checked, and never thoroughly eradicated, returned as usual. They were further promoted by the innovations in religion which the king introduced, and which were exceedingly disagreeable both to English and Irish. The Reformation, however, continued to make some progress, though slowly, during the reign of Edward VI. and even in the reign of Queen Mary; for as the persecution did not reach thither, many Protestants fled to Ireland in order to avoid the queen's cruelty. The machinations of the Spaniards against Queen Elizabeth excited the Irish to fresh insurrections. The king of Spain, indeed, not only encouraged the natives in those insurrections, but actually sent over troops to assist them in driving out the English altogether. This they had well nigh effected; but the Spaniards, upon seeing an army of Irish defeated by an handful of their enemies, were so much provoked that they surrendered all the places they had made themselves masters of, and even offered to assist the English in reducing the rebels; though it was not thought proper to accept of their assistance. The consequence of this was, that the Irish, abandoned by these allies, were unable to carry on the war; and the grand rebel O'Neal of Tirowen, or Tirone, after much treachery, evasion, and many pretended submissions, was at last obliged to submit in good earnest. He fell upon his knees before the deputy, and petitioned for mercy with an air and aspect of distress. He subscribed his submission in the most ample manner and form. He implored the queen's gracious commiseration; and humbly sued to be restored to his dignity, and the state of a subject, which he had justly forfeited. He utterly renounced the name of *O'Neal*, which he had assumed on account of the great veneration in which it was held among the Irish. He abjured all foreign power, and all dependency except on the crown of England; resigned all claim to any lands excepting such as should be conferred upon him by letters patent; promising at the same time to assist the state in abolishing all barbarous customs and establishing law and civility among his people. The lord deputy, on the part of the queen, promised a full pardon to him and all his followers; to himself the restoration of his blood and honours, with a new patent for his lands, except some portions reserved for certain chieftains received into favour, and some for the use of English garrisons.

47 All the disorders ended in the reign of Queen Elizabeth.

No insurgent now remained in this kingdom who had not obtained or sued for mercy. Many, indeed, were driven by necessity to the continent, and earned a subsistence by serving in the armies of Spain; and thus a race of Irish exiles was trained to arms, filled with a malignant resentment against the English. Thus the honour of reducing all the enemies of the crown of England in this island, after a continued contest for 440 years, was reserved for the arms of Elizabeth. The ghastliness of famine and desolation was now somewhat enlivened by the restoration of tranquillity. Indeed, from the most authentic accounts, the prices of provisions were so high, that considering the value of money at that time, it is surprising how the inhabitants could subsist. From an account of the rates of provisions taken by the mayor of Dublin in 1602, it appears, That wheat had risen from 36s. to 9l. the quarter; barley-malt from 10s. to 43s. the barrel; oat-meal from 5s. to 22s. the barrel; pease from 5s. to 40s. the peck; oats from 3s. 4d. to 20s. the barrel; beef from 26s. 8d. to 8l. the carcase; mutton from 3s. to 26s. the carcase; veal from 10s. to 29s. the carcase; a lamb from 12d. to 6s.; a pork from 8s. to 20s.

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48 Exorbitant prices of provisions at that time.

49 The Irish civilized by James I.

Under James I. Ireland began to assume a quite different appearance. That monarch valued himself upon promoting the arts of peace, and made it his study to civilize his barbarous Irish subjects. By repeated conspiracies and rebellions, a vast tract of land had escheated to the crown in six northern counties, Tyrconnel, now called *Donnegal*, Tyrone, Derry, Fermanah, Cavan, and Armagh, amounting to about 500,000 acres; a tract of country covered with woods, where rebels and banditti found a secure refuge, and which was destined to lie waste without the timely interposition of government. James resolved to dispose of these lands in such a manner as might introduce all the happy consequences of peace and cultivation. He caused surveys to be taken of the several counties where the new settlements were to be established; described particularly the state of each; pointed out the situations proper for the erection of towns and castles; delineated the characters of the Irish chieftains, the manner in which they should be treated, the temper and circumstances of the old inhabitants, the rights of the new purchasers, and the claims of both; together with the impediments to former plantations, and the methods of removing them.

At his instance it was resolved, that the persons to whom lands were assigned should be either new undertakers from Great Britain, especially from Scotland, or *servitors*, as they were called; that is, men who had for some time served in Ireland, either in civil or military offices; or old Irish chieftains or captains. Among the last were included even those Irish who had engaged in the rebellion of Tirone, and still harboured their secret discontents. To gain them, if possible, by favour and lenity, they were treated with particular indulgence. Their under-tenants and servants were allowed to be of their own religion; and, while all the other planters were obliged to take the oath of allegiance, they were tacitly excepted. The servitors were allowed to take their tenants either from Ireland or Britain, provided no Popish recusants were admitted. The British undertakers were confined to their own countrymen.

In the plantations which had been formerly attempted, the Irish and English had been mixed together, from a fond imagination that the one would have learned civility and industry from the other. But experience had now discovered, that this intercourse served only to make the Irish envy the superior comforts of their

Ireland. their English neighbours, and to take the advantage of a free access to their houses to steal their goods and plot against their lives. It was therefore deemed necessary to plant them in separate quarters; and in the choice of these situations, the errors of former times were carefully corrected. The original English adventurers, on their first settlement in Ireland, were captivated by the fair appearance of the plain and open districts. Here they erected their castles and habitations; and forced the old natives into the woods and mountains, their natural fortresses. There they kept themselves unknown, living by the milk of their kine, without husbandry or tillage; there they increased to incredible numbers by promiscuous generation; and there they held their assemblies, and formed their conspiracies without discovery. But now the northern Irish were placed in the most open and accessible parts of the country, where they might lie under the close inspection of their neighbours, and be gradually habituated to agriculture and the mechanic arts. To the British adventurers were assigned places of the greatest strength and command; to the servitors stations of the greatest danger and greatest advantage to the crown: but as this appeared a peculiar hardship, they were allowed guards and entertainment, until the country should be quietly and completely planted.

The experience of ages had shown the inconvenience of enormous grants to particular lords, attended with such privileges as obstructed the administration of civil government; and even in the late reign, favourite undertakers had been gratified with such portions of land as they were by no means able to plant. But, by the present scheme, the lands to be planted were divided in three different proportions; the greatest to consist of 2000 English acres, the least of 1000, and the middle of 1500. One half of the escheated lands in each county was assigned to the smallest, the other moiety divided between the other proportions; and the general distributions being thus ascertained, to prevent all disputes between the undertakers, their settlements in the respective districts were to be determined by lot. Estates were assigned to all, to be held of them and their heirs. The undertakers of 2000 acres were to hold of the king *in capite*; those of 1500, by knights service; those of 1000 in common soccage. The first were to build a castle, and enclose a strong court-yard, or *bawn*, as it was called, within four years; the second, to finish a house and bawn within two years; and the third, to enclose a bawn; for even this rude species of fortification was accounted no inconsiderable defence against an Irish enemy. The first were to plant upon their lands, within three years, 48 able men of English or Scottish birth, to be reduced to 20 families; to keep a demesne of 600 acres in their own hands; to have four fee farmers on 120 acres each; six lease-holders, each on 100 acres; and on the rest, eight families of husbandmen, artificers, and cottagers. The others were under the like obligations proportionably. All were, for five years after the date of their patents, to reside upon their lands, either in person, or by such agents as should be approved by the state, and to keep a sufficient quantity of arms for their defence. The British and servitors were not to alienate their lands to mere Irish, or to demise any portions of them to such persons as should refuse to take the oaths to government; they were to let them at determined rents, and for no shorter term than 21 years, or three lives. The houses of their tenants were to be built after the English fashion, and united together in towns or villages. They had power to erect manors, to hold courts-baron, and to create tenures. The old natives, whose tenures were granted in fee simple, to be held in soccage, were allowed the like privileges. They were enjoined to let their lands at certain rents, and for the like terms as the other undertakers; to take no Irish exactions from their inferior tenants, and to oblige them to forsake their old Scythian custom of wandering with their cattle from place to place for pasture, or *creaghting* as they called it; to dwell in towns, and conform to the English manner of tillage and husbandry. An annual rent from all the lands was reserved to the crown for every 60 English acres, six shillings and eightpence from the undertakers, ten shillings from servitors, and 13 shillings and fourpence from Irish natives. But for two years they were exempt from such payments, except the natives who were not subject to the charge of transportation. What gave particular credit to this undertaking, was the capital part which the city of London was persuaded to take in it. The corporation accepted of large grants in the county of Derry; they engaged to expend 20,000l. on the plantation, to build the cities of Derry and Colerain, and stipulated for such privileges as might make their settlements convenient and respectable. As a competent force was necessary to protect this infant plantation, the king, to support the charge, instituted the order of baronets, an hereditary dignity, to be conferred on a number not exceeding 200; each of whom, on passing his patent, was to pay into the exchequer such a sum as would maintain 30 men in Ulster, for three years, at 8d. daily pay.

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But scarcely had the lands been allotted to the different patentees, when considerable portions were reclaimed by the clergy as their rightful property. And so far had the estates of the northern bishoprics been embarrassed, both by the usurpations of the Irish lords, and the claims of patentees, that they scarcely afforded a competent, much less an honourable, provision for men of worth and learning, while the state of the parochial clergy was still more deplorable. Most of the northern churches had been either destroyed in the late wars or had fallen to ruin: the benefices were small, and either shamefully kept by the bishops in the way of commendam or sequestration; or filled with ministers as scandalous as their income. The wretched flock was totally abandoned; and for many years divine service had not been used in any parish-church of Ulster, except in cities and great towns. To remedy these abuses, and to make some proper provision for the instruction of a people immersed in lamentable ignorance, the king ordained, that all ecclesiastical lands should be restored to their respective sees and churches, and that all lands should be deemed ecclesiastical from which bishops had in former times received rents or pensions; that compositions should be made with the patentees for the site of cathedral churches, the residences of bishops and dignitaries, and other church-lands which were not intended to be conveyed to them; who were to receive equivalents if they compounded

Ireland. freely, or else to be deprived of their patents as the king was deceived in his grant, and the possessions restored to the church. To provide for the inferior clergy, the bishops were obliged to resign all their impropriations, and relinquish the tythes paid them out of parishes, to the respective incumbents; for which ample recompense was made out of the king's lands. Every proportion allotted to undertakers was made a parish, with a parochial church to each. The incumbents, besides their tythes and duties, had glebe-lands assigned to them of 60, 90, or 120 acres, according to the extent of their parishes. To provide for a succession of worthy pastors, free-schools were endowed in the principal towns, and considerable grants of lands conferred on the university of Dublin, which had been re-established by Queen Elizabeth, together with the advowson of six parochial churches, three of the largest, and three of the middle proportion in each county.

Such was the general scheme of this famous northern plantation, so honourable to the king, and of such consequence to the realm of Ireland. Its happy effects were immediately perceived, although the execution by no means corresponded with the original idea. Buildings were slowly erected; British tenants were difficult to be procured in sufficient numbers; the old natives were at hand, offered higher rents, and were received into those districts from which it was intended to exclude them. In this particular, the Londoners were accused of being notoriously delinquent. They acted entirely by agents; their agents were interested and indolent, and therefore readily countenanced this dangerous intrusion of the natives: an error of which sufficient cause was afterwards found to repent. For the present, however, a number of loyal and industrious inhabitants was poured into the northern counties, considerable improvements made by the planters, and many towns erected. To encourage their industry, and advance his own project, the king was pleased to incorporate several of these towns, so that they had a right of representation in the Irish parliament.

50 State of Ireland since that time.

The only disturbance that now ensued was from the Popish party, who never could bear to see the Protestant religion established in preference to their own, while they had power to resist. After numberless ineffectual machinations and complaints, their fury broke out in a terrible massacre of the new English settlers in the year 1641 *. The affairs of Britain were at that time in such confusion, that the rebellion could not be quelled in less than ten years; during which time the country was reduced to a most deplorable situation. It recovered again under Cromwell, Charles II. and the short reign of James II. On the accession of William III. matters were once more thrown into confusion by an attempt made in favour of the exiled monarch, who came over thither in person, and whose bad success is related under the article BRITAIN, N° 309—325. Since that time, Ireland hath recovered from the miserable situation to which it was so long reduced. As yet, however, it is far from being in such a flourishing state as either South or North Britain. One great obstacle to the improvement of the kingdom is the extreme poverty and oppression of the common people. The produce of the kingdom, either in corn or cattle, is not above two-thirds at most of what by good cultivation it might yield. The high roads throughout the southern and western parts are lined with beggars, who live in huts or cabins without chimneys, or any covering capable of defending the wretched inhabitants from the cold, wind, and rain. "It is a scandal (says a judicious traveller, who lately visited Ireland) to the proprietors of this fertile country, that there is not the greatest plenty of good corn and hay in it; but some of the best land in the king's dominions is suffered to be torn in pieces, and cultivated in the vilest manner, by a set of abject miserable occupiers: who are absolutely no better than slaves to the despicable, lazy, and oppressive subordinate landlords."

* See *Britain*, N° 103.—106.

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51 Origin of the Irish discontents.

Another cause consisted in the various restrictions which it had been thought proper to lay upon the Irish trade; and the constant and great preference given by government to the English manufacturers, at last produced the most grievous discontents and distresses.

52 State of the argument for and against the Irish.

On the part of England it was supposed, that as Ireland had been subdued by force of arms, the inhabitants ought in every respect to be subject to the victorious state; and that the interest of the English ought on all ocasions to be consulted, without regarding the inconveniences which might ensue to the Irish. A very different idea, however, was entertained by the Irish themselves, or at least by the patriotic party among them. They rejected all notions of dependence upon the British ministry and parliament; and though they did not scruple to acknowledge the king's right of conquest, they most positively denied that the British parliament had any authority whatever over them; and therefore looked upon the restrictions laid upon their trade as the most grievous and intolerable oppression.

53 Cause of Sherlock and Annesley in 1719.

In the year 1719, according to Mr Crawford, the oppression and grievances of Ireland became altogether insupportable. A cause relative to an estate, betwixt Hester Sherlock and Maurice Annesley, was tried before the court of exchequer in Ireland. Here the latter obtained a decree in his favour; but, on an appeal, the sentence was reversed by the lords. Annesley appealed from them to the English peers; who having reversed the judgment of those of Ireland, he was put in possession of the subject in dispute. Sherlock appealed again to the Irish lords, and the matter became very serious. It was proposed to the consideration of the judges, Whether by the laws of the land an appeal lies from a decree of the court of exchequer in Ireland to the king in parliament in Britain? This question being determined in the negative, Sherlock was again put in possession of the estate. A petition was some time after presented to the house by Alexander Burrowes sheriff of Kildare, setting forth, "That his predecessor in office had put Sherlock in possession of the premisses: that, upon his entering into office, an injunction, agreeable to the order of the English peers, issued from the exchequer, requiring him to restore Maurice Annesley to the possession of the above-mentioned lands; and that, not daring to act in contradiction to the order of the house, he was fined. In consequence of this, being afraid lest he should be taken into custody, he durst not come in to pass his accounts; and for this he was fined 1200l." His conduct was applauded by the Irish lords, who commanded the fines imposed upon him to be

54 Dispute betwixt the peers of Ireland and England.

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be taken off; and in a short time after drew up a memorial to be presented to his majesty. In this they set forth, that having submitted to Henry II. as their liege lord, they had from him obtained the benefit of English law, with many other privileges, particularly that of having a distinct parliament. In consequence of this concession, the English had been encouraged to come over and settle in Ireland, where they were to enjoy the same privileges as in their own country. They farther insisted, that though the imperial crown of Ireland was annexed to that of Britain, yet being a distinct dominion, and no part of the kingdom of England, none could determine with regard to its affairs, but such as were authorised by its known laws and customs, or the express consent of the king. It was an invasion of his majesty's prerogative for any court of judicature to take upon them to declare, that he could not by his authority in parliament determine all controversies betwixt his subjects of this kingdom; or that, when they appealed to his majesty in parliament, they did not bring their cause before a competent judicature: and they represented that the practice of appeals from the Irish parliament to the British peers was an usurped jurisdiction assumed by the latter; the bad consequences of which they pointed out very fully.

This representation being laid before his majesty in parliament, it was resolved, that the barons of exchequer in Ireland had acted with courage and fidelity, according to law, &c. and an address was presented to his majesty, praying him to confer on them some mark of his royal favour as a recompense for the injuries they had sustained from the Irish legislature. This was followed by a bill for the better securing the dependency of Ireland upon the crown of Great Britain. By this it was determined, "That the house of lords of Ireland have not, nor of right ought to have, any jurisdiction to judge of, affirm, or reverse, any judgement, sentence, or decree, given or made in any court within the kingdom; and that all proceedings before the said house of lords, upon any such judgment or decree, are utterly null and void to all intents and purposes whatever." It was also determined in this bill, that "the king's majesty, by and with the advice and consent of the lords spiritual and temporal, and commons of Great Britain in parliament assembled, had, hath, and of right ought to have, full power and authority to make laws and statutes of sufficient force and validity to bind the people of Ireland."

55 Bill passed for the better securing the dependence of Ireland.

This bill was looked upon by the Irish to be equivalent to a total annihilation of their liberties; and they were still farther exasperated in the year 1724, by the patent granted to one Wood an Englishman to coin halfpence and farthings for the use of Ireland. In this affair Wood is said to have acted very dishonourably; insomuch that a shilling of the halfpence he made were scarcely worth a penny. Great quantities of this base coin were sent over; and it was used not only in change, but accounts were likely to be paid in it, so that dangerous consequences seemed ready to ensue. The Irish parliament, in an address to the king, represented that they were called upon by their country to lay before his majesty the ill consequences of Wood's patent, and that it was likely to be attended with a diminution of the revenue and the ruin of trade.

56 The bill generally abhorred.

57 Farther discontents on account of Wood's patent.

The same was set forth in an application made to his majesty by the privy council. In short, the whole nation seemed to unite their efforts in order to remedy an evil of such dangerous tendency, the effects of which already began to be felt.

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58 Dr Swift in danger on account of his opposition to Wood.

Among the controversial pieces which appeared on this occasion, those of Dr Swift were particularly distinguished. His Drapier's letters are to this day held in grateful remembrance by his countrymen; but he was in danger of suffering deeply in the cause. He had been at particular pains to explain an argument used by the Irish on this occasion, viz. that brass money, being illegal, could not be forced upon the nation by the king, without exceeding the limits of his prerogative. Hence the opposite party took occasion to charge the Irish with a design of casting off their dependence on Britain altogether: but Swift having examined the accusation with freedom, pointed out the encroachments made by the British parliament on the liberties of Ireland; and asserted, that any dependence on England, except that of being subjects to the same king, was contrary to the law of reason, nature, and nations, as well as to the law of the land. This publication was so disagreeable to government, that they offered a reward of 300l. for the discovery of the author; but as nobody could be found who would give him up, the printer was prosecuted in his stead: however, he was unanimously acquitted by a jury of his countrymen.

The Irish continued to be jealous of their liberties, while the British ministry seemed to watch every opportunity of encroaching upon them as far as possible. Apprehensions being entertained of a design upon Ireland by the partisans of the pretender in 1715, a vote of credit to government was passed by the house of commons to a considerable amount. This laid the foundation of the national debt of that kingdom, which was quickly augmented to several hundred thousand pounds; for discharge of which a fund had been provided by administration. An attempt was made during the administration of Lord Carteret (who governed Ireland till 1730), to vest this fund in the hands of his majesty and of his heirs for ever, redeemable by parliament. This was opposed by the patriotic party, who insisted that it was inconsistent with the public safety, and unconstitutional, to grant it longer than from session to session. In 1731 another attempt was made to vest the same in the crown for 21 years; but when the affair came to be debated, the strength of both parties was found to be equally balanced. Immediately before the vote, however, Colonel Tottingham having rode post on the occasion, arrived in the house, and determined the question against government.

59 Dispute with government about the fund for payment of the national debt.

The behaviour of Lord Chesterfield, who was made governor of Ireland in 1745, is highly extolled, on account of his moderation, and the favour he showed to the liberties of the people. As the apprehensions of government were then very considerable, on account of the rebellion which raged in Scotland, his lordship was advised to augment the military force of Ireland by 4000 men. Instead of this, however, he sent four battalions to the duke of Cumberland, and encouraged the volunteer associations which formed in different parts for the defence of their country. These battalions

60 Excellent conduct of Lord Chesterfield.

Ireland. he replaced by additional companies to the regiments already on the establishment; by which means he saved a considerable expence to the nation, without augmenting the influence of the crown. The supplies asked by him were small, and raised in the most easy and agreeable manner to the people, expending the money at the same time with the utmost economy. There was even a saving which he applied to the use of the public. It had been a custom with many of the lieutenant-governors of Ireland to bestow reversionary grants, in order to purchase the assistance of friends in support of their measures. Lord Chesterfield, however, being convinced that this practice was prejudicial to the interest of the nation, put a stop to it; but the most remarkable part of his administration was, the humanity with which he treated the Roman Catholics. Before his arrival, the Romish chapels in Dublin had been shut up; their priests were commanded by proclamation to leave the kingdom; and such as disobeyed had been subjected to imprisonment and other penalties. Lord Chesterfield, however, convinced that the affection is to be engaged by gentle usage, permitted them to exercise their religion without disturbance. The accusations brought against them of forming plots against government were disregarded; and so much was his moderation and uprightness in this respect applauded by all parties, that, during the whole time of his administration, the national tranquillity was not once interrupted by the smallest internal commotion. On his leaving the island, his bust was placed at the public expence in the castle of Dublin.

61 His humanity to the Roman Catholics.

Lord Chesterfield having left Ireland in the spring of 1746, the island continued to be governed by lords justices until the 13th of September, when William earl of Harrington came over with the powers of lord-lieutenant. A contest in the election of representatives for the city of Dublin this year called forth the abilities of Mr Charles Lucas, so much celebrated for his patriotic virtues. Having some years before been admitted a member of the common council, he resolved to exert himself in behalf of the privileges of his fellow-citizens. The powers of this city-corporation, as well as of others, had been changed by authority derived from an act in the time of Charles II.; and among other innovations, for the purpose of augmenting the influence of the crown, they deprived the commons of the power of choosing the city magistrates. This was now vested in the board of aldermen; which being subject in the exercise of its jurisdiction to the approbation of the privy-council, was consequently dependent on government. Mr Lucas complained loudly of the injury; but as this law could not be altered, he set himself to inquire, whether encroachments, which could not be justified by law, had not been made on the rights of the citizens? Having satisfied himself, by searching diligently into ancient records, that his apprehensions were well founded, he published his discoveries, explained the nature of the evidence resulting from them, and encouraged the people to take the proper steps for obtaining redress.

62 Account of Mr Lucas the celebrated patriot.

The consequence of this was a contest between the commons and aldermen, which lasted two years. The former struggled in vain to recover their lost privileges; but the exertions of Lucas in every stage of the dispute had rendered him so respectable among his countrymen, that on the death of Sir James Somerville he was encouraged to declare himself a candidate for a seat in parliament. This being highly agreeable to his wishes, he was elected accordingly; and distinguished himself not only by the boldness and energy of his speeches, but more especially by a number of addresses to his countrymen. In some of these he particularly considered the several branches of the constitution, and pointed out the encroachments of the British legislature. Government, alarmed at his boldness, determined to crush him by the hand of power; for which reason the most obnoxious paragraphs were extracted from his works, and made the foundation of a charge before parliament. The commons voted him an enemy to his country; and addressed the lord-lieutenant for an order to prosecute him by the attorney-general. The universal esteem in which he was held could not screen him from ministerial vengeance: he was driven from Ireland; but having spent some years in banishment, he was once more enabled, through the exertions of his friends, to present himself as a candidate for the city of Dublin. Being again elected, he continued to distinguish himself by the same virtuous principles for which he had been from the beginning so remarkable, and died with the character which he had preserved through life, of the *incorruptible* Lucas.

Ireland.

63 Dispute with government concerning previous consent.

In the year 1753, a remarkable contest took place betwixt government and the Irish parliament relative to previous consent. As the taxes for defraying state expences are imposed by the representatives of the people, it thence naturally follows, that they have a right to superintend the expenditure of them; and by an inspection of the journals of the house of commons, it appeared, that from the year 1692 they had exercised a right of calling for and examining the public accounts. When any surplus remained in the treasury, it was also customary to dispose of it by bill for the good of the public. In the year 1749, however, a considerable sum having remained in the treasury, the disposal of this money in future became an object of ministry. In 1751, it was intimated to parliament by the lord-lieutenant, the duke of Dorset, that his majesty would graciously consent and recommend it to them, that such part of the money as then remained in the treasury should be applied to the reduction of the national debt. As this implied a right inherent in his majesty to dispose of the money as he thought proper, the proposal was accounted an invasion of the privileges of the house of commons. No notice was therefore taken of the directions given by Dorset, but the bill was sent over to England as usual without any notice taken of his majesty's consent. In England, however, this very material alteration was made, and their word *consent* introduced into it. The commons at this time did not take any notice of such an essential alteration; but next year, on its being repeated, the bill was rejected. Government were now at the utmost pains to defend the measure they had adopted, and pamphlets were published in which it was justified on various grounds. The event at last, however, was, that his majesty by letter took the money which had been the subject of dispute out of the treasury.

64 Invasion by Thurot in 1760.

In the year 1760 Ireland sustained an inconsiderable hostile invasion, the first that had been experienced in the

 the kingdom for 70 years. The armament consisted originally of five ships; one of 48 guns, two of 36, and two of 24; having on board 1270 land forces. They were commanded by the celebrated Thurot, whose reputation, as captain of a privateer, had advanced him to this dignity. The squadron, however, was driven by adverse winds to Gottenburgh; where having continued a few days, they set sail for the place of their destination. On their arrival at the coast of Ireland, they were obliged to shelter themselves in Lough Foyle from a violent storm which again overtook them. The wind, however, having shifted, and continuing to blow tempestuously, they were obliged to keep out to sea. Two of the ships were thus separated from the rest by the violence of the storm, and returned to France; but the remaining three directed their course to the island of Islay, where they anchored; and having repaired their damages, took in a supply of provisions, and thence sailed to Carrickfergus.

In the mean time, an officer belonging to the small number of troops at that time in Carrickfergus took post on a rising ground, with an advanced party, to observe the motions of the enemy. A skirmish ensued betwixt this party and Thurot's men, until the former, having expended all their ammunition, were obliged to retire into the town. Having in vain attempted to prevent the enemy from taking possession of it, the British troops shut themselves up in the castle, where they were soon obliged to capitulate, after having killed about 100 of their enemies, with the loss of only three on their own part. The French having plundered the town, set sail on the 26th of February; and three days after were all taken by Captain Elliot, Thurot himself being killed in the engagement.

65 Rise of the White Boys.

Soon after the accession of George III. Ireland first began to be disturbed by a banditti who styled themselves *White Boys;* and as these were generally of the Romish persuasion, the prejudices against that sect broke forth in the usual manner. A plot was alleged to have been formed against government; French and Spanish emissaries to have been sent over to Ireland, and actually to be employed to assist in carrying it into execution. The real cause of this commotion, however, was as follows: About the year 1739 the murrain broke out among the horned cattle in the duchy of Holstein, from whence it soon after spread through the other parts of Germany. From Germany it reached Holland, from whence it was carried over to England, where it raged with great violence for a number of years. The mitigation of the penal laws against the Papists about this time encouraged the natives of the south of Ireland to turn their thoughts towards agriculture, and the poor began to enjoy the necessaries of life in a comfortable manner. A foreign demand for beef and butter, however, having become uncommonly great, by reason of the cattle distemper just mentioned, ground appropriated to grazing became more valuable than that employed in tillage. The cottars were everywhere dispossessed of their little possessions, which the landlords let to monopolizers who could afford a higher rent. Whole baronies were now laid open to pasturage, while the former inhabitants were driven desperate by want of subsistence. Numbers of them fled to the large cities, or emigrated to foreign countries, while those who remained took small spots of land, about an acre each, at an exorbitant price, where they endeavoured if possible to procure the means of protracting a miserable existence for themselves and families. For some time these poor creatures were allowed by the more humane landlords the liberty of commonage; but afterwards this was taken away, in despite of justice and a positive agreement; at the same time, the payment of tythes, and the low price of labour, not exceeding the wages in the days of Queen Elizabeth, aggravated the distresses of the unhappy sufferers beyond measure.

In such a situation, it is no wonder that illegal methods were pursued in expectation of redress. The people, covered with white shirts, assembled in parties at night, turned up the ground, destroyed bullocks, levelled the inclosures of the commons, and committed other acts of violence. These unavailing efforts were construed into a plot against the government; numbers of the rioters were apprehended in the counties of Limerick, Cork, and Tipperary, and some of them condemned and executed. In different places these unhappy wretches, instead of being looked upon as objects of compassion, were prosecuted with the utmost severity. Judge Aston, however, who was sent over to try them, executed his office with such humanity as did him the highest honour. A most extraordinary and affecting instance of this was, that on his return from Dublin, for above ten miles from Clonmell, both sides of the road were lined with men, women, and children; who, as he passed along, kneeled down and implored the blessing of heaven upon him as their guardian and protector.

In the mean time, the violences of the White Boys continued, notwithstanding that many examples were made. The idea of rebellion was still kept up; and, without the smallest foundation, gentlemen of the first rank were publicly charged with being concerned in it, insomuch that some of them were obliged to enter bail, in order to protect themselves from injury. The Catholics of Waterford gave in a petition to Lord Hertford, the governor in 1765, in behalf of themselves and brethren, protesting their loyalty and obedience to government; but no effectual step was taken either to remove or even to investigate the cause of the disturbances.

66 Of the Oak Boys.

About two years after the appearance of the White Boys, a similar commotion arose in Ulster; which, however, proceeded in part from a different cause, and was of much shorter duration. By an act of parliament, the making and repairing of highways in Ireland was formerly a grievous oppression on the lower ranks of people. An housekeeper who had no horse was obliged to work at them six days in the year; and if he had a horse, the labour of both was required for the same space of time. Besides this oppression, the poor complained that they were frequently obliged to work at roads made for the convenience of individuals, and which were of no service to the public. Nor were these the only grievances of which the insurgents at this time complained: the tythes exacted by the clergy were said to be unreasonable, and the rent of lands was more than they could bear. In 1763, therefore, being exasperated by a road proposed to be made through a part of the county of Armagh, the inhabitants most immediately affected by it rose in a body, and declared

Ireland. red that they would make no more highways of the kind. As a mark of distinction, they wore oak-branches in their hats, from which circumstance they called themselves *Oak-boys*. The number of their partizans soon increased, and the insurrection became general through the counties of Armagh, Tyrone, Derry, and Fermanagh. In a few weeks, however, they were dispersed by parties of the military; and the public tranquillity was restored with the loss of only two or three lives. The road-act, which had been so justly found fault with, was repealed next session; and it was determined, that for the future the roads should be made and repaired by a tax to be equally assessed on the lands of the rich and poor.

67 Of the Steel-boys.

Besides these, another set of insurgents called *Steel-boys* soon made their appearance, on the following account. The estate of an absentee nobleman happening to be out of lease, he proposed, instead of an additional rent, to take fines from his tenants. Many of those, who at that time possessed his lands, were unable to comply with his terms; while others who could afford to do so, insisted upon a greater rent from the immediate tenants than they were able to pay. The usual consequence of this kind of oppression instantly took place. Numbers being dispossessed and thrown destitute, were forced into acts of outrage similar to those already mentioned. One of these charged with felony was carried to Belfast, in order to be committed to the county gaol; but his associates, provoked by the usage they had received, determined to relieve him. The design was eagerly entered into by great numbers all over the country; and several thousands, having provided themselves with offensive weapons, proceeded to Belfast in order to rescue the prisoner. To prevent this, he was removed to the barracks and put under the guard of a party of soldiers quartered there; but the Steel-boys pressed forward with a determination to accomplish their purpose by force, and some shots were actually exchanged between them and the soldiers. The consequences would undoubtedly have been fatal, had it not been for a physician of highly respectable character, who interposed at the risk of his life, and prevailed on those concerned to set the prisoner at liberty. The tumult, however, was not thus quelled. The number of insurgents daily increased, and the violences committed by them were much greater than those of the other two parties. Some were taken and tried at Carrickfergus, but none condemned. It was supposed that the fear of popular resentment had influenced the judges; for which reason an act was passed, enjoining the trials of such prisoners for the future to be held in counties different from those where the crimes were committed. This breach of a fundamental law of the constitution gave such offence, that though several of the Steel-boys were afterwards taken up and carried to the castle of Dublin, no jury would find them guilty. This obnoxious law was therefore repealed; after which some of the insurgents, being tried in their respective counties, were condemned and executed. Thus the commotions were extinguished; but as no methods were taken to remove the cause, the continued distresses of the people drove many thousands of them into America in a very few years.

In the mean time a very material alteration had taken place in the constitution of the kingdom, with regard to the duration of parliaments. At an early period these had continued only for a year; but afterwards they were prolonged until the death of a sovereign, unless he chose to dissolve it sooner by an exertion of his prerogative. Thus, from the moment of their election, the commoners of Ireland were in a manner totally independent of the people and under the influence of the crown; and government soon availed itself of this power to bribe a majority to serve its own purposes. Various methods were thought of to remedy this evil; but all proved ineffectual until the year 1768, when, during the administration of Lord Townshend, a bill was prepared and sent over to England, by which it was enacted, that the Irish parliaments thenceforth should be held every seven years. It was returned with the addition of one year; and ever since the parliaments of this country have been octennial. During this session an attempt was made by the British ministry to infringe the rights of the house of commons in a very material point. A money-bill, which had not originated in Ireland, was sent over from Britain, but was rejected in a spirited manner. Its rejection gave great offence to the lord-lieutenant, who repeatedly prorogued them till the year 1771.

Ireland.

68 Parliament of Ireland made octennial.

69 An English money-bill rejected.

The affairs of Ireland began now to draw towards that crisis which effected the late remarkable revolution in favour of the liberties of the people. The passing of the octennial bill had diminished, but not taken away, the influence of the crown; and the situation of affairs between Britain and America had inclined ministry to make the most of this influence they could. In 1773 Lord Harcourt, at that time governor of Ireland, exerted himself so powerfully in favour of administration, that the voice of opposition in parliament was almost entirely silenced. The difficulties, however, under which the whole nation laboured began now to be so severely felt, that an address on the subject was presented by the commons to his excellency. In this they told him, that they hoped he would lay before the king the state of Ireland, restricted in its commerce from the short-sighted policy of former times, to the great injury of the kingdom, and the advantage of the rivals, if not of the enemies, of Great Britain. These hardships, they said, were not only impolitic, but unjust; and they told his excellency plainly, that they expected to be restored to some, if not to all their rights, which alone could justify them to their constituents for laying upon them so many burdens during the course of this session.

70 Distressed state of Ireland laid before the lord-lieutenant.

This representation to the lord-lieutenant produced no effect; and Ireland for some years longer continued to groan under the burden of intolerable restrictions. These had principally taken place in the reign of Charles II. At this time it was enacted, that beef or live cattle should not be exported to England; neither were the commodities of Ireland to be exported to the American colonies, nor American goods to be imported to any port in Ireland without first unloading them in some part of England or Wales. All trade with Asia was excluded by charters granted to particular companies; and restrictions were imposed upon almost every valuable article of commerce sent to the different ports of Europe. Towards the end of

71 Account of the restrictions on the Irish trade.

King William's reign an absolute prohibition was laid on the exportation of Irish wool. This restriction proved disadvantageous not only to Ireland, but to Great Britain herself. The French were now plentifully supplied by smuggling with Irish wool; and not only enabled to furnish woollen stuffs sufficient for their own consumpt, but even to vie with the British in foreign markets. Other restrictions conspired to augment the national calamity; but that which was most sensibly felt took place in 1776. "There had hitherto (says Mr Crawford) been exported annually to America large quantities of Irish linens; this very considerable source of national advantage was now shut up, under pretence of rendering it more difficult for the enemy to be supplied with the means of subsistence; but in reality, to enable a few rapacious English contractors to fulfil their engagements, an embargo, which continued, was in 1776 laid upon the exportation of provisions from Ireland, by an unconstitutional stretch of prerogative. Remittances to England, on various accounts, particularly for the payment of our forces abroad, were more than usually considerable. These immediate causes being combined with those which were invariable and permanent, produced in this country very calamitous effects. Black cattle fell very considerably in their value; notwithstanding that, customers could not be had. The price of wool was reduced in a still greater proportion. Rents everywhere fell; nor, in many places, was it possible to collect them. An universal stagnation of business ensued. Credit was very materially injured. Farmers were pressed by extreme necessity, and many of them failed. Numbers of manufacturers were reduced to extreme necessity, and would have perished, had they not been supported by public charity. Those of every rank and condition were deeply affected by the calamity of the times. Had the state of the exchequer permitted, grants might have been made to promote industry, and to alleviate the national distress; but it was exhausted to a very uncommon degree. Almost every branch of the revenue had failed. From want of money the militia law could not be carried into execution. We could not pay our forces abroad; and, to enable us to pay those at home, there was a necessity for borrowing 50,000l. from England. The money which parliament was forced to raise, it was obliged to borrow at an exorbitant interest. England, in its present state, was affected with the wretched condition to which our affairs were reduced. Individuals there, who had estates in Ireland, were sharers of the common calamity; and the attention of individuals in the British parliament was turned to our situation, who had even no personal interest in this country."

72 Irish affairs taken into consideration by the British parliament.

While things were in this deplorable situation, Earl Nugent, in the year 1778, undertook the cause of the Irish, by moving in parliament, that their affairs should be taken into consideration by a committee of the whole house. This motion being agreed to almost unanimously, it was followed by several others, viz. That the Irish might be permitted to export directly to the British plantations, or to the settlements on the coasts of Africa, all goods being the produce and manufacture of the kingdom, excepting only wool, or woollen manufactures, &c. That all goods, being the produce of any of the British plantations, or of the settlements on the coast of Africa, tobacco excepted, be allowed to be imported directly from Ireland to all places, Britain excepted. That cotton yarn, the manufacture of Ireland, be allowed to be imported into Great Britain. That glass manufactured in Ireland be permitted to be exported to all places, Britain excepted.—With respect to the Irish sail cloth and cordage, it was moved, that they should have the same privilege as for the cotton yarn.

73 Petitions against the proposed relief.

These motions having passed unanimously, bills for the relief of Ireland were framed upon them accordingly. The trading and manufacturing towns of England, however, now took the alarm, and petitions against the Irish indulgence were brought forward from many different quarters, and numbers instructed to oppose it. In consequence of this a warm contest took place on the second reading of the bills. Mr Burke supported them with all the strength of his eloquence; and as the minister seemed to favour them, they were committed; though the violent opposition to them still continued, which induced many of their friends at that time to desert their cause.

74 New attempt in favour of the Irish.

Though the efforts of those who favoured the cause of Ireland thus proved unsuccessful for the present, they renewed their endeavours before the Christmas vacation. They now urged, that, independent of all claims from justice and humanity, the relief of Ireland was enforced by necessity. The trade with British America was now lost for ever; and it was indispensably requisite to unite the remaining parts of the empire in one common interest and affection. Ireland had hitherto been passive; but there was danger that, by driving her to extremities, she would cast off the yoke altogether; or, even if this should not happen, the tyranny of Britain would be of little advantage; as, on the event of a peace, the people would desert a country in which they had experienced such oppression, and emigrate to America, where they had a greater prospect of liberty. On the other hand, they insisted, that very considerable advantages must ensue to Britain by the emancipation of Ireland; and every benefit extended to that country would be returned with accumulated interest. The business was at last summed up in a motion made by Lord Newhaven, in February 1769, that liberty should be granted to the Irish to import sugars from the West Indies. This was carried; but the merchants of Glasgow and Manchester having petitioned against it, it was again lost through the interference of the minister, who now exerted his influence against the relief he had formerly declared in favour of. Various other efforts, however, were made to effect the intended purpose; but nothing more could be obtained than a kind of compromise, by which Lord Gower pledged himself, as far as he could answer for the conduct of others, that, during the recess, some plan should be fallen upon for accommodating the affairs of Ireland to the satisfaction of all parties.

75 New petitions against them.

In the mean time the affairs of this country hastened to a crisis; which forced the British ministry to give that relief so long solicited, and which they so often promised without any intention of performing their promises. As long as the affairs of the country were under consideration of the British parliament, the inhabitants

Ireland.

habitants preserved some degree of patience; but when they found themselves deserted by the minister, their discontent was inflamed beyond measure. The laws he had passed in their favour, viz. an allowance to plant tobacco, and a bill for encouraging the growth of hemp, were considered as mockery instead of relief, and it was now resolved to take such measures as should effectually convince the ministry that it was not their interest to tyrannize any longer. With this view, associations against the importation of British commodities, which had been entered into in some places before, now became universal throughout the kingdom; and such as presumed to oppose the voice of the people in this respect, had the mortification to find themselves exposed to public obloquy and contempt on that account. Thus the Irish manufactures began to revive; and the people of Britain found themselves obliged seriously to take into consideration the relief of that country, and to look upon it as a matter very necessary to their own interest. To this also they were still more seriously disposed by the military associations, which had taken place some time before, and now assumed a most formidable appearance. These at first were formed by accidental causes. The situation of Britain, for some time, had not admitted of any effectual method being taken for the defence of Ireland. Its coasts had been insulted, and the trading ships taken by the French and American privateers; nor was it at all improbable that an invasion might soon follow. "The minister (says Mr Crawford) told us, that the situation of Britain was such as rendered her incapable of protecting us. The weakness of government, from the following circumstance, was strikingly obvious. The mayor of Belfast having transmitted a memorial to the lord-lieutenant, setting forth the unprotected state of the coast, and requesting a body of the military for its defence, received for answer, that he could not afford him any other assistance than half a troop of dismounted horse and half a company of invalids." In this dilemma, a number of the inhabitants of the town associated for the purpose of self-defence; and, on the same principle, a few volunteer companies were formed in different parts of the kingdom. These chose their own officers, purchased their own uniforms and arms, and, with the assistance of persons properly qualified, assembled regularly on the parade to acquire a knowledge in the military art. Their respectable appearance, and the zeal they showed in the service of their country, soon excited curiosity and attracted respect. Their number increased every day; and people of the first consequence became ambitious of being enrolled among them. As no foreign enemy appeared, against whom they might exercise their military prowess, these patriotic bands soon began to turn their thoughts towards a deliverance from domestic oppression. No sooner was this idea made known, than it gave new vigour to the spirit of volunteering; insomuch that, by the end of 1778, the military associations were thought to amount at least to 30,000 men. But, while thus formidable from their numbers, and openly avowing their intention to demand a restitution of their rights from the British ministry, they professed the utmost loyalty and affection to the king; and with regard to sobriety and decent demeanor, they were not only unexceptionable, but exemplary. Instead of exciting disorders themselves, they restrained every kind of irregularity, and exerted themselves with unanimity and vigour for the execution of the laws.

76 An universal ferment ensues throughout the kingdom.

77 Associations formed against importing British commodities.

78 Rise of the military associations in Ireland.

79 They resolve to deliver their country from the tyranny of Britain.

That such a body of armed men, acting without any command or support from government, should be an object of apprehension to ministry, is not to be wondered at. In the infancy of their associations, indeed, they might have been suppressed; but matters had been suffered to proceed too far; and, as they stood at present, all resistance was vain. As the volunteers could not be controuled, some attempts were made to bring them under the influence of the crown: but this being found impossible, ministry thought proper to treat them with an appearance of confidence; and, accordingly, orders were issued for supplying them with 16,000 stand of arms.

80 They are supplied with arms by the ministry.

The Irish parliament, thus encouraged by the spirit of the nation, and pressed by the difficulties arising from the diminished value of their estates, resolved to exert themselves in a becoming manner, in order to procure relief to their country. At their meeting in October 1779, an address to his majesty was drawn up; in which it was expressly declared, that "it was not by temporary expedients, but by a free trade alone, that Ireland was now to be saved from impending ruin." When this address was carried up to the lord lieutenant, the streets of Dublin were lined with volunteers, commanded by the duke of Leinster, in their arms and uniform. But, though a general expectation of relief was now diffused, an anxious fear of disappointment still continued. If the usual supply was granted for two years, there was danger of the distresses continuing for all that time; and after it was granted, the prorogation of parliament might put a stop to the expected relief altogether. The people, however, were not now to be trifled with. As the court party showed an aversion to comply with the popular measures, a mob rose in Dublin, who, among other acts of violence, pulled down the house of the attorney-general, and did their utmost to compel the members to promise their countenance to the matter in hand. When the point therefore came to be debated, some espoused the popular side from principle, others from necessity; so that on the whole a majority appeared in favour of it. A short money-bill was passed and transmitted to England; where, though very mortifying to the minister, it passed also.

81 The parliament address the king for relief.

82 Riot in Dublin.

On the meeting of the British parliament in December, the affairs of Ireland were first taken into consideration in the house of peers. The necessity of granting relief to that kingdom was strongly set forth by the lord who introduced them. He said, the Irish, now conscious of possessing a force and consequence to which they had hitherto been strangers, had resolved to apply it to obtain the advantages of which the nation, by this spirited exertion, now showed themselves worthy. Had they for some time before been gratified in lesser matters, they would now have received with gratitude, what they would, as affairs stood at present, consider only as a matter of right. He then moved for a vote of censure on his majesty's ministers for their neglect of Ireland. This motion was rejected; but Earl Gower, who had now deserted the cause of ministry, declared, that there did not exist in his mind a single doubt that the vote of censure was

83 Affairs of Ireland again considered by the British parliament.

not

Ireland. not well founded. He added, in his own vindication, that early in the summer he had promised that relief should be granted to Ireland, and had done every thing in his power to keep his word; but that all his efforts had proved fruitless.

In the house of commons the minister found himself so hard pressed by the arguments of the minority, and the short money-bill from Ireland, that he was obliged to declare, that in less than a week he intended to move for a committee of the whole house to take the affairs of Ireland into consideration. On the 13th of December he accordingly brought forward his propositions in favour of this kingdom. The design of these was to repeal the laws prohibiting the exportation of Irish manufactures made of wool or wool flocks; to repeal as much of the act of 19th Geo. II. as prohibited the importation of glass into Ireland, except of British manufacture, or the exportation of glass from Ireland; and to permit the Irish to export and import commodities to and from the West Indies and the British settlements on the coast of Africa, subject to such regulations and restrictions as should be imposed by the Irish parliament.

84 Lord North's propositions in favour of the kingdom.

On these propositions his lordship made several remarks by way of explanation. One object of them, he said, was to restore to Ireland the wool export and woollen manufacture. In 1692, from jealousy or some other motive, an address had been presented by the English parliament, recommending a kind of compact between the two kingdoms; the terms of which were, that England should enjoy the woollen manufacture, and Ireland the linen, exclusively. But notwithstanding this agreement, it was certain, that England carried on the linen manufacture to as great extent as Ireland, while at the same time the former retained the monopoly of woollens. The first step taken, in consequence of this agreement, was to lay a heavy duty, equal to a prohibition, upon all wool and woollens exported; and when this act, which was but a temporary one by way of experiment, expired, the English parliament passed a similar one, and made it perpetual; by means of which and some others a total end was put to the woollen trade of Ireland.

85 His observations upon them.

With regard to the trade of Ireland, his lordship observed, that, upon an average of the six years from 1766 to 1772, the export to Ireland was somewhat more than two millions; and, in the succeeding six years, from 1772 to 1778, about as much more: nearly one-half being British manufacture and produce; the other half certified articles, of which this country was the medium of conveyance. The native produce, on an average, was somewhat more than 900,000l. but of this only 200,000l. were woollens. The woollen manufacture of Ireland therefore would long continue in a state of infancy; and though cloths had been manufactured sufficient for home consumption, yet it could hardly be expected that Ireland would rival Great Britain at the foreign markets, when, after the expence of land-carriage, freight, insurance, and factorage, the latter was able to undersell Ireland in her own market on the very spot, even though aided by the low wages and taxes paid in the country.

With regard to the linen, his lordship observed, that however prosperous it might appear, yet still it was capable of great improvement. The idea of extending and improving the linen manufactures of Ireland originated from a pamphlet written by Sir William Temple; and this gave rise to the compact which had been referred to. But though this compact was now about to be dissolved, it was his opinion that the bounties on importing Irish linens ought not to be discontinued; because it appeared, that the British bounties had operated as a great encouragement to the Irish manufactures, at the same time that the sum appropriated to this purpose amounted to more than 13,000l. Ireland.

With regard to the dissolution of the compact betwixt England and Ireland, he observed, that, as a more liberal spirit had now appeared on both sides of the water, he hoped both kingdoms would be perfectly contented. Ireland would never be able to rival England in the fine woollen fabrics; but allowing the Irish to manufacture their own wool, would put an end to the contraband trade with France; and it ought to be remembered, that whatever was an advantage to Ireland, must sooner or later be of singular advantage to Great Britain, and by the proposed regulations in their commercial connections, the two kingdoms would be put more upon an equality.

With regard to the glass manufacture, his lordship likewise observed, that Ireland had been very injuriously treated. Before the act of 19th Geo. II. they had begun to make some progress in the lower branches of the glass manufacture; but by that act they were not only prevented from importing any other glass than what was of British manufacture, but also from exporting their own glass, or putting it on a horse or carriage with a design to be exported. This act had been complained of in Ireland as a piece of great injustice, and it was the intention of his proposition to remove that grievance.

With regard to the third proposition, his lordship observed, that allowing Ireland a free trade to the colonies must be considered as a favour to that kingdom. Considering her even as an independent state, she could set up no claim to an intercourse with the British colonies. By every principle of justice, of the laws of nations, and the custom of the other European powers who had settlements and distant dependencies, the mother country had an exclusive right to trade with, and to forbid all others from having any intercourse with them. Were not this the case, what nation under the sun would spend their blood and treasure in establishing a colony, and protecting and defending it in its infant state, if other nations were afterwards to reap the advantages derived from their labour, hazard, and expence. But though Great Britain had a right to restrain Ireland from trading with her colonies, his lordship declared himself of opinion that it would be proper to allow her to participate of the trade. This would be the only prudent means of affording her relief; it would be an unequivocal proof of the candour and sincerity of Great Britain; and he had not the least doubt but it would be received as such in Ireland. Britain, however, ought not to be a sufferer by her bounty to Ireland; but this would be the case, should the colony trade be thrown open to the latter, without accompanying it with restrictions similar to those which were laid upon the British trade with them. An equal trade must include an equal share of duties and

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taxes; and this was the only proper ground on which the benefits expected by the Irish nation could be either granted or desired.

86 They are received with great joy by the Irish.

Having made some other observations on the propriety of these measures, they were regularly formed into motions, and passed unanimously. In Ireland they were received with the utmost joy and gratitude by both houses of parliament. On the 20th of December the following resolutions were passed; viz. That the exportation of woollen and other manufactures from Ireland to all foreign places will materially tend to relieve its distresses, increase its wealth, promote its prosperity, and thereby advance the welfare of Britain, and the common strength, wealth, and commerce of the British empire: that a liberty to trade with the British colonies in America and the West Indies, and the settlements on the coast of Africa, will be productive of very great commercial benefits; will be a most affectionate mark of the regard and attention of Great Britain to the distresses of the kingdom; and will give new vigour to the zeal of his majesty's brave and loyal people of Ireland, to stand forth in support of his majesty's person and government, and the interest, the honour, and dignity of the British empire." The same resolutions were, next day, passed in the house of peers.

87 Excessive eulogiums on Lord North to the disadvantage of the minority in parliament.

The highest encomiums were now passed on Lord North. His exertions in favour of Ireland were declared to have been great and noble; he was styled "the great advocate of Ireland;" and it was foretold, that he would be of glorious and immortal memory in that kingdom. But while these panegyrics were so lavishly made on the minister, the members in opposition, in the British parliament, were spoken of in very indifferent terms. It was said, that, while they thought the minister did not mean to go into the business of Ireland, they called loudly for censure against him for not doing it; but when it was found that he meant seriously to take their affairs into consideration, they had then basely seceded, and wholly forsaken the interest of the kingdom. These censures were so loud,

88 They are checked by a letter from a member of the British house of commons.

that a member of the British house of commons wrote a letter to be communicated to his friends in Ireland, in which he represented, that however politic it might be to compliment the minister on the present occasion, it was neither very wise nor generous in the members of the Irish parliament to be so ready in bestowing invectives against their old friends in England. With regard to the minister, it was alleged, that until he was driven to it by the measures adopted in Ireland, his conduct had been extremely equivocal, dilatory, and indecisive. The minority had been justly incensed against him for having so grossly sacrificed the honour of the nation and the dignity of parliament as to refuse any substantial relief to the Irish, until their own exertions had made it appear that every thing which could be done for them by the British parliament was not a matter of choice but of necessity. The minority, it was said, had earnestly and repeatedly laboured to procure relief for the people of Ireland; and if they had now contented themselves with silent acquiescence in the minister's propositions, it was only until they should know whether they would be satisfactory to the people of Ireland; and because what was now done, appeared to be more an act of state than of mere parliamentary deliberation and discussion.

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89 Additional propositions in favour of Ireland.

To the propositions already mentioned, Lord North added three others. 1. For repealing the prohibition of exporting gold coin from Great Britain to Ireland. 2. For removing the prohibition to import foreign hops into Ireland, and the drawback on the exportation of foreign hops. 3. For enabling his majesty's Irish subjects to become members of the Turkey company, and to export woollens in British or Irish bottoms to the Levant. In support of this last resolution his lordship urged, that it was necessary, because the exportation of woollens having been granted to Ireland, the Irish would naturally expect a share in the Turkey trade, which, as matters stood, was not possible, it having hitherto been a received opinion, that no Irishman could be elected a member of the Turkey company. Notwithstanding all the satisfaction, however, with which the news of these bills were received in Ireland, it was not long before thoughts of a different kind began to take place. It was suggested that a free trade could be but of little use, if held by a precarious tenure. The repeal of the obnoxious laws was represented as an act of necessity, not of choice, on the part of the British parliament. When that necessity, therefore, no longer existed, the same parliament might recal the benefits it had granted, and again fetter the Irish trade by restrictions perhaps more oppressive than before. To secure the advantages they now possessed it was necessary that the kingdom should enjoy the benefits of a free constitution. For this the people looked up to the volunteer companies; and the idea of having such a glorious object in their power, augmented the numbers of those which had also been increased from other causes. They had now received the thanks of both houses of parliament, and thus had obtained the sanction of the legislature. Thus many who had formerly scrupled to connect themselves with a lawless body, made no scruple to enter their lists. Government also engaged several of their friends in the volunteer cause. New companies were therefore raised; but whatever might be the political sentiments of the officers, the private men were universally attached to the popular cause. The national spirit was likewise kept up by several patriotic publications, particularly the letters signed Owen Roe O'Neil, which in an especial manner attracted the public attention; nor was the pulpit backward in contributing its part in the same cause.

90 New disputes begin to take place.

91 Numbers of the volunteers increased.

92 They form themselves into battalions.

To give the greater weight to their determinations, the volunteers now began to form themselves into battalions; and in a very short time they were all united in this manner, excepting a small number of companies, which, from accidental causes, continued separate. The newspapers were filled with resolutions from the several corps, declaring Ireland to be an independent kingdom, entitled by reason, nature, and compact, to all the privileges of a free constitution; that no power in the world, excepting the king, with the lords and commons of Ireland, had or ought to have power to make laws for binding the Irish; and that, in support of these rights and privileges, they were determined to sacrifice their lives and property,

93 Ireland declared an independent kingdom.

Notwithstanding all this zeal, however, the representatives

sentatives of the people in Ireland seem yet to have behaved in a very supine and careless manner, and to have been entirely obedient to the dictates of government. One of the house of commons declared in the month of April 1780, that "no power on earth, excepting the king, lords, and commons of Ireland, had a right to make laws to bind the people." "Every member in the house (says Mr Crawford), one excepted, acknowledged the truth of the proposition, either in express terms, or by not opposing it; and yet, however astonishing it may appear, it was evident, that had the question been put, it would have been carried in the negative." The matter was compromised. The question was not put; and nothing relating to it was entered on the journals.

94 Servile behaviour of the Irish parliament.

95 Irish mutiny bill made perpetual.

This inattention, or rather unwillingness, of the majority to serve their country, was more fully manifested in the case of a mutiny bill, which they allowed to be made perpetual in Ireland, though that in England had always been cautiously passed only from year to year. After it was passed, however, some of the zealous patriots, particularly Mr Grattan, took great pains to set forth the bad tendency of that act. He observed, that standing armies in the time of peace were contrary to the principles of the constitution and the safety of public liberty; they had subverted the liberty of all nations, excepting in those cases where their number was small, or the power of the sovereign over them limited in some respect or other; but it was in vain to think of setting bounds to the power of the chief magistrate, if the people chose by a statute to bind themselves to give them a perpetual and irresistible force. The mutiny bill, or martial law methodised, was directly opposite to the common law of the land. It set aside the trial by jury and all the ordinary steps of law; establishing in their stead a summary proceeding, arbitrary crimes and punishments, a secret sentence, and sudden execution. The object of this was to bring those who were subject to it to a state of implicit subordination, and render the authority of the sovereign absolute. The people of England, therefore, from a laudable jealousy on all subjects in which their liberty was concerned, had in the matter of martial law exceeded their usual caution. In the preamble to the mutiny act, they recited part of the declaration of right, "that standing armies and martial law in time of peace, without the consent of parliament, are illegal." Having then stated the purity and simplicity of their ancient constitution, and set forth the great principle of magna charta, they admitted a partial and temporary repeal of it: they admitted an army, and a law for its regulation, but at the same time they limited the number of the former, and the duration of both; confining the existence of the troops themselves, the law that regulated them, and the power that commanded them, to one year. Thus were the standing forces of England rendered a parliamentary army, and the military rendered effectually subordinate to the civil magistrate, because dependent on parliament. Yet the people of England considered the army, even thus limited, only as a necessary evil, and would not admit even of barracks, lest the soldier should be still more alienated from the state of a subject; and in this state of alienation have a post of strength, which would augment the danger arising from his situation. When the parliament of Ireland proceeded to regulate the army, therefore, they ought to have adopted the maxims of the British constitution, as well as the rules of British discipline. But they had totally departed from the maxims and example of the English, and that in the most important concern, the government of the sword. They had omitted the preamble which declared the great charter of liberty; they had left the number of forces in the breast of the king, and under these circumstances they had made the bill perpetual.

96 Bad tendency of it set forth by Mr Grattan.

It is probable that the bulk of the Irish nation did not at first perceive the dangerous tendency of the bill in question. The representations of Mr Grattan and others, however, soon opened their eyes, and a general dissatisfaction took place. This was much increased by two unsuccessful attempts in the house of commons; one to obtain an act for modifying Poyning's law; and the other for securing the independency of the judges. An universal disgust against the spiritless conduct of parliament now took place; and the hopes of the people were once more set on the volunteers.

97 Reviews of the volunteers appointed.

As it became now somewhat probable that these companies might at last be obliged to assert the rights of their countrymen by force of arms, reviews were judged necessary to teach them how to act in larger bodies, and to give them a more exact knowledge of the use of arms. Several of these reviews took place in the course of summer 1780. The spectators in general were struck with the novelty and grandeur of the sight; the volunteers became more than ever the objects of esteem and admiration, and their numbers increased accordingly. The reviews in 1781 exceeded those of the former year; and the dexterity of the corps who had associated more early was now observed to be greater than that of the rest. More than 5000 men were reviewed at Belfast, whose performances were set off to peculiar advantage by the display of 13 pieces of cannon. They showed their alacrity to serve their country in the field, on a report having arisen that the kingdom was to be invaded by the combined fleets of France and Spain; and for their spirited behaviour on this occasion they received a second time the thanks of both houses of parliament.

Such prodigious military preparations could not but alarm the British ministry in the highest degree; and it was not to be doubted that the Irish volunteers would come to the same extremities the Americans had done, unless their wishes were speedily complied with. Still, however, it was imagined possible to suppress them, and it was supposed to be the duty of the lord-lieutenant to do so. It was during the administration of the duke of Buckingham that the volunteers had grown into such consequence; he was therefore recalled, and the earl of Carlisle appointed in his place. Though it was impossible for the new governor to suppress the spirit of the nation, he found it no difficult matter to obtain a majority in parliament. Thus every redress was for the present effectually denied. Neither the modification of Poyning's law, nor the repeal of the obnoxious parts of the mutiny bill, could be obtained. The volunteers, exasperated at this behaviour, resolved at once to show that they were resolved to do themselves justice, and were conscious that they had power to do so. At a meeting of the officers of the southern battalion of the Armagh regiment, com-

98 Shameful conduct of the Irish parliament.

manded by the earl of Charlemont, the following resolutions were entered into, Deeember 28. 1781. 1. That the most vigorous and effectual methods ought to be pursued for rooting corruption out from the legislative body. 2. For this purpose a meeting of delegates from all the volunteer associations was necessary; and Dungannon, as the most central town in the province of Ulster, seemed to be the most proper for holding sueh a meeting. 3. That as many and lasting advantages might attend the holding such a meeting before the present session of parliament was much farther advanced, the 15th of February next should be appointed for it.

99 A general meeting of the volunteers appointed.

These resolutions proved highly offensive to the friends of government, and every method was taken to discourage it. On the appointed day, however, the representatives of 143 volunteer corps attended at Dungannon; and the results of their deliberation were as follows. 1. It having been asserted, that volunteers, as such, cannot with propriety debate or publish their opinions on political subjeets, or on the conduct of parliament, or public men, it was resolved unanimously, that a citizen, by learning the use of arms, does not abandon any of his civil rights. 2. That a elaim from any body of men, other than the king, lords, and eommons of Ireland, to make laws to bind the people, is illegal, unconstitutional, and a grievanee. 3. Resolved, with one dissenting voiee only, that the powers exercised by the privy council of both kingdoms, under colour or pretence of the law of Poyning, are unconstitutional and a grievance. 4. Resolved unanimously, that the ports of this country are by right open to all foreign countries not at war with the king; and that any burden thereupon, or obstruetion thereto, excepting only by the parliament of Ireland, are unconstitutional and a grievanee. 5. Resolved, with one dissenting voice only, that a mutiny bill, not limited in point of duration from session to session, is uneonstitutional and a grievanee. 6. Resolved unanimously, that the independence of judges is equally essential to the impartial administration of justiee in Ireland as in England, and that the refusal or delay of this right is in itself unconstitutional and a grievance. 7. Resolved, with 11 dissenting voiees only, that it is the deeided and unalterable determination of the volunteer companies to seek a redress of these grievances; and they pledged themselves to their country, and to each other, as freeholders, fellow-citizens, and men of honour, that they would, at every ensuing election, support only those who had supported them, and would support them therein, and that they would use all constitutional means to make such pursuit of redress speedy and effeetual. 8. Resolved, with only one dissenting voice, that the minority in parliament, who had supported those constitutional rights, are entitled to the most grateful thanks of the volunteer companies, and that an address to the purpose be signed by the chairman, and published with the resolutions of the present meeting. 9. Resolved unanimously, that four members from each county of the provinee of Ulster, eleven to be a quorum, be appointed a committee till the next general meeting, to act for the volunteer corps, and to call general meetings of the provinee as occasion requires. 10. The committee being appointed, and the time of general meetings, and some other affairs of a similar nature settled, it was resolved unanimously, that the court of Portugal having unjustly refused entry to certain Irish commodities, the delegates would not consume any wine of the growth of Portugal, and that they would use all their influence to prevent the use of the said wine, excepting what was then in the kingdom, until sueh time as the Irish exports should be received in the kingdom of Portugal. 11. Resolved, with only two dissenting voices, that they hold the right of private judgment in matters of religion equally sacred in others as in themselves; and that they rejoiced in the relaxation of the penal laws against the Papists, as a measure fraught with the happiest consequences to the union and prosperity of the inhabitants of Ireland.

100 Resolutions of this meeting.

101 Ministerial party prevails excessively in parliament.

While these proceedings took place at Dungannon, the ministry carried all before them in parliament. In a debate coneerning the exclusive legislative privileges of Ireland, a law member, speaking of the arbitrary acts of England, asserted, that "power constituted right;" and a motion that the commons should be declared the representatives of the people was carried in the negative. These scandalous proeeedings could not but hasten the ruin of their cause. The resolutions entered into at the Dungannon meeting were reeeived throughout the kingdom with the utmost applause. A few days after, Mr Grattan, whose patriotism has been already taken notiee of, moved in the house of commons for a long and spirited address to his majesty, declaring the rights of the kingdom, and asserting the principle which now began to prevail, that Ireland could legally be bound by no power but that of the king, lords, and commons of the country; though the British parliament had assumed such a power. This motion was at present rejected by a large majority; but their eyes were soon enlightened by the volunteers.

102 Mr Grattan's motion for an address, declaring the independency of Ireland rejected.

These having now appointed their committees of correspondenee, were enabled to communicate their sentiments to one another with the utmost facility and quiekness. An association was formed in the name of the nobility, representatives, freeholders, and inhabitants of the county of Armagh, wherein they set forth the neeessity of declaring their sentiments openly respecting the fundamental and undoubted rights of the nation. They declared, that, in every situation in life, and with all the means in their power, they would maintain the constitutional right of the kingdom to be governed only by the king and parliament of Ireland, and that they would, in every instanee, uniformly and strenuously oppose the execution of any statutes, excepting such as derived their authority from the parliament just mentioned; and they pledged themselves, in the usual manner, to support what they now declared with their lives and fortunes.

103 Declaration of the volunteers to that purpose.

This declaration was quiekly adopted by all the other counties, and similar sentiments beeame universally avowed throughout the kingdom. The change in the British ministry in the spring of 1782 facilitated the wishes of the people. The duke of Portland, who came over as lord-lieutenant in April that year, sent a most welcome message to parliament. He informed them, that "his majesty, being concerned to find that discontents and jealousies were prevailing among his loyal subjects in Ireland, upon matters of great weight and importance, he recommended it to parliament to take

104 Favourable message sent to parliament by the duke of Portland.

take the same into their most serious consideration, in order to such a final adjustment as might give mutual satisfaction to his kingdoms of Great Britain and Ireland."

105 Mr Grattan's second attempt in favour of his address.

Mr Grattan, whose patriotic efforts had never been slackened, now ventured to propose a second time in parliament the address which had been rejected before. On the 16th of April he began a speech to this purpose with a panegyric on the volunteers, and the late conduct of the people. The Irish, he said, were no longer a divided colony, but an united land, manifesting itself to the rest of the world in signal instances of glory. In the rest of Europe the ancient spirit was expired; liberty was yielded, or empire lost; nations were living upon the memory of past glory, or under the care of mercenary armies. In Ireland, however, the people, by departing from the example of other nations, had become an example to them. Liberty, in former times and in other nations, was recovered by the quick feelings and rapid impulse of the populace. But in Ireland, at the present period, it was recovered by an act of the whole nation reasoning for three years on its situation, and then rescuing itself by a settled sense of right pervading the land. The meeting of the delegates at Dungannon was an original measure; and, like all of that kind, continued to be matter of surprise, until at last it became matter of admiration. Great measures, such as the meeting of the English at Runny Mead, and of the Irish at Dungannon, were not the consequences of precedent, but carried in themselves both precedent and principle; and the public cause in both instances would infallibly have been lost had it been trusted to parliament. The meeting at Dungannon had resolved, that the claim of the British parliament was illegal; and this was a constitutional declaration. The Irish volunteers were associated for the preservation of the laws, but the conduct of the British parliament subverted all law. England, however, had no reason to fear the Irish volunteers; they would sacrifice their lives in her cause. The two nations formed a general confederacy. The perpetual annexation of the crown was a great bond, but magna charta was a greater. It would be easy for Ireland to find a king; but it would be impossible to find a nation who would communicate to them such a charter as magna charta: and it was this which made their natural connexion with England. The Irish nation were too high in pride, character, and power, to suffer any other nation to make their laws. England had indeed brought forward the question, not only by making laws for Ireland the preceding session, but by enabling his majesty to repeal all the laws which England had made for America. Had she consented to repeal the declaratory law against America? and would she refuse to repeal that against Ireland? The Irish nation were incapable of submitting to such a distinction.

106 It is agreed to.

Mr Grattan now found his eloquence much more powerful than formerly. The motion which, during this very session, had been rejected by a great majority, was now agreed to after a short debate, and the address to his majesty prepared accordingly. In this, after thanking his majesty for his gracious message, and declaring their attachment to his person and government, they assured him, that the subjects of Ireland are a free people; that the crown of Ireland is an imperial crown, inseparably annexed to that of Britain, on which connection the interests and happiness of both nations essentially depend; but the kingdom of Ireland is distinct, with a parliament of its own: that there is no body of men competent to make laws to bind Ireland, except the king, lords, and commons thereof, nor any other parliament that hath any power or authority of any sort whatsoever, in this country, except the parliament of Ireland. They assured his majesty, that they humbly conceive, that in this right the very essence of their liberties did exist; a right which they, on the part of all Ireland, do claim as their birthright, and which they cannot yield but with their lives. They assured his majesty, that they had seen with concern certain claims advanced by the parliament of Great Britain, in an act intitled, "For the better securing the dependency of Ireland;" an act containing matter entirely irreconcileable to the fundamental rights of the nation. They informed his majesty, that they conceived this act, and the claims it advanced, to be the great and principal cause of the discontents and jealousies in the kingdom. They assured him that his commons did most sincerely wish, that all the bills, which become law in Ireland, should receive the approbation of his majesty under the seal of Great Britain; but yet, that they conceived the practice of suppressing their bills in the council of Ireland, or altering them anywhere, to be another just cause of discontent and jealousy. They further assured his majesty, that an act intitled, "For the better accommodation of his majesty's forces," being unlimited in duration, and defective in some other circumstances, was another just cause of jealousy and discontent. These, the principal causes of jealousies and discontent in the kingdom, they had submitted to his majesty, in humble expectation of redress: and they concluded with an assurance, that they were more confident in the hope of obtaining redress, as the people of Ireland had been, and were, not more disposed to share the freedom of England, than to support her in her difficulties, and to share her fate.

107 Substance of the address.

108 It is graciously received.

To this remarkable address a most gracious answer was given. In a few days the lord-lieutenant made a speech to both houses; in which he informed them, that, by the magnanimity of the king, and wisdom of the British parliament, he was enabled to assure them, that immediate attention had been paid to their representations, and that the legislature of Britain had concurred in a resolution to remove the causes of their discontents, and were united in a desire to gratify every wish expressed in the late address to the throne; and that, in the mean time, his majesty was graciously disposed to give his royal assent to acts to prevent the suppressing of bills in the Irish privy-council, and to limit the mutiny-bill to the term of two years.

109 Extreme joy of the Irish.

The joy which now diffused itself all over the kingdom was extreme. The warmest addresses were presented not only to his majesty but to the lord-lieutenant. The commons instantly voted 100,000l. to his majesty, to enable him to raise 20,000 men for the navy; and soon after, 5000 men were likewise voted from the Irish establishment. The volunteers became in a peculiar manner the objects of gratitude and universal panegyric; but none was placed in so conspicuous

ous a light as Mr Grattan. Addresses of thanks flowed in upon him from all quarters; and the commons addressed his majesty to give him 50,000l. as a recompense of his services; for which they promised to make provision.

110 Mr Grattan rewarded.

111 Jealousies begin to revive.

This request was also complied with; but still the jealousies of the Irish were not completely eradicated. As the intended repeal of the declaratory act was found to be simple, without any clause expressly relinquishing the claim of right, several members of the house of commons were of opinion, that the liberties of Ireland were not yet thoroughly secured. The majority, however, were of opinion, that the simple repeal of the obnoxious act was sufficient; but many of the nation at large differed in sentiments. Mr Flood, a member of the house, and a zealous patriot, now took the lead in this matter; while Mr Grattan lost much of his popularity by espousing the contrary opinion. The matter, however, was to appearance finally settled by the volunteers, who declared themselves on Mr Grattan's side. Still some murmurings were heard; and it must be owned, that even yet the conduct of Britain appeared equivocal. An English law was passed, *permitting* importation from one of the West India islands to all his majesty's dominions; and of course including Ireland, though the trade of the latter had already been declared absolutely free. This was looked upon in a very unfavourable light. Great offence was also taken at a member of the English house of lords for a speech in parliament, in which he asserted, that Great Britain had a right to bind Ireland in matters of an external nature; and proposed to bring in a bill for that purpose. The public discontent was also greatly inflamed by some circumstances relating to this bill, which were particularly obnoxious. Lord Beauchamp, in a letter addressed to one of the volunteer corps, was at pains to show that the security of the legislative privileges obtained from the parliament of Britain was insufficient. The lawyers corps, also, who took the question into consideration, were of the same opinion; but the circumstance which gave the greatest offence was, that the chief justice in the English court of king's bench gave judgment in an Irish cause directly contrary to a law which had limited all such judgments to the first of June. All these reasons of discontent, however, were removed on the death of the marquis of Rockingham, and the appointment of the new ministry who succeeded him. Lord Temple came over to Ireland, and his brother and secretary Mr Grenville went to England, where he made such representations of the discontents which prevailed concerning the insufficiency of the declaratory act, that Mr Townshend, one of the secretaries of state, moved in the house of commons for leave to bring in a bill to remove from the minds of the people of Ireland all doubts respecting their legislative and judicial privileges. This bill contained, in the fullest and most express terms, a relinquishment on the part of the British legislature of all claims of a right to interfere with the judgment of the Irish courts, or to make laws to bind Ireland in time to come. Thus the contest was at last ended; and ever since this kingdom has continued to flourish, and to enjoy the blessings of tranquillity and peace, free from every kind of restriction either on its commerce or manufactures, till the commencement of the rebellion in 1798.

112 Equivocal conduct of Britain.

113 Affairs finally settled under the administration of Lord Temple.

Some time after the above transaction, the *commercial propositions* of Mr Pitt were rejected by both houses of the Irish parliament; and in the latter end of the year 1788, very warm debates took place on the regency bill; but the sudden and unexpected recovery of his majesty put a period to this political contest. The question respecting the emancipation of the Roman Catholics was much agitated about this period, and the ministry rendered themselves still more popular by appointing Earl Fitzwilliam to succeed the marquis of Buckingham as lord-lieutenant of Ireland. It is to be presumed, however, that the joy of the people on this occasion chiefly originated from the hope, that the bill for the Catholic emancipation, brought in by Mr Grattan on the 12th of February 1795, and another on the 14th of the same month, for the diminution of the national expenditure, would be allowed to pass. The ministry, however, seemed to reprobate these measures, in consequence of which Earl Fitzwilliam was recalled, and Lord Camden appointed his successor, which was so repugnant to the feelings of the people, that the day of Lord Fitzwilliam's departure (25th March) was observed at Dublin as a day of general mourning. The bill in favour of Catholic emancipation was rejected on the 4th of May, by a majority of 71, which had a powerful tendency to increase the popular discontent. Of this disaffection the rulers of France determined to avail themselves, and fitted out a fleet for the invasion of Ireland, consisting of 18 sail of the line, 13 frigates, and 12 sloops, with transports, and 25,000 men, which were under the command of General Hoche. This formidable armament sailed from Brest on the 10th of December 1796; but so tempestuous was the weather that the fleet was dispersed; the squadron under the command of Admiral Bouvet returned to Brest on the 31st after reaching Bantry bay; a ship of the line and two frigates perished at sea; another French frigate was taken by the British, and a French ship of the line escaped, after fighting for some time against two British ships.

114 Bill in favour of the Catholics rejected.

115 French attempt to land in Ireland.

It was no doubt a fortunate circumstance for Britain, yet the internal anarchy and confusion of Ireland were still rapidly gaining ground. The members of the society of United Irishmen, instituted in the year 1791, professed to have no other objects in view than a reform in parliament, and that the people of every religious profession should enjoy an equality of civil rights; but it was afterwards undeniably proved, that they anxiously wished to bring about a revolution, and establish a republican government, similar to that which then deluged France with blood. The members swore "to obtain a complete reform in the legislature, on the principles of civil, political, and religious liberty; and never to inform, or give evidence, in any court, against any member of that or similar societies." So plausible were these objects, that their numbers increased with astonishing rapidity, and their divisions and subdivisions were soon extended all over the kingdom. Many loyal subjects, afraid of the extension of Roman Catholic privileges, also formed associations under the title of *Orangemen*, in order to deprive Papists of arms; and they in their turn assumed the name of *defenders*: in consequence of which the most terrible outrages were committed on both sides. The United Irishmen still continued the most numerous; but the

116 Origin of the rebellion.

first

first direct communication between them and the French directory took place in 1795 through the medium of one Mr Lewins; and in the following year the invasion, already mentioned, was concerted on the frontiers of France, between Lord Fitzgerald, Arthur O'Connor, and General Hoche, the failure of which did not seem to intimidate the rebels. Arms continued to be distributed with secrecy among the members, and a correspondence with the French directory was still preserved.

As proceedings of such a nature were justly alarming to the British government, the *Insurrection Act* was passed in March 1796, by which magistrates were authorized to place the people under martial law; a measure no doubt justifiable from the alarming nature of the times; but it certainly had the effect of increasing the discontents, and was also productive of numerous acts of oppression. Yet such as were connected with the United Irishmen were guilty of actions equally atrocious. So fully convinced were they of ultimate success,

117 Irish republic.

that in December 1797 an executive directory was nominated for the government of the *Irish republic*, consisting of Lord Edward Fitzgerald, Mr A. O'Connor, Mr Oliver Bond, Dr M'Niven, and Counsellor Emmet. With such consummate art was their conspiracy planned, and with such profound secrecy was it conducted, that there is great reason to believe it might have been carried into effect, had not Mr Reynolds made a discovery in March 1798, which led to the apprehension of the principal ringleaders, and Fitzgerald received a mortal wound while resisting the officers. This reverse of fortune did not prevent the nomination of another directory; but its fate was similar to the former, and information was given against them by a Captain Armstrong, who had entered into their society for the purpose of betraying them. John and Henry Sheares, two of the directors, were apprehended on the 21st of May 1798; Mr Neilson and a number more of the same description on the 23d, and the metropolis was declared in a state of insurrection. The guards were made three times stronger than before; and the whole city might be considered as forming but one garrison. Dublin was thus delivered from the dreadful havock and devastation premeditated by the rebels; but in the provinces of Leinster and Connaught, as well as in various other places, they appeared in formidable bodies, intercepted the mail coaches, and thus gave the signal for a general insurrection.

118 Actions with the rebels.

In their attack upon the town of Naas, on the 24th of May, they experienced a signal defeat from Lord Gosford at the head of the Armagh militia, and left 400 men dead on the field. General Dundas defeated a considerable body of the rebels near Kilcullen, and on the 25th Lord Roden vanquished another body of them about 400 strong, the leaders of whom were taken and executed. On the 26th they shared the same fate at Tallagh hill, when 350 of them were slain. They attacked the town of Carlow to the number of 1000, where they were defeated with the loss of 400 men; but as the inhabitants fired upon the king's troops, one half of the town was burnt in revenge. The rebels made an attack upon Kildare on the 29th, but the gallant conduct of Sir J. Duff and the troops under his command, made them soon retire with the loss of 200 men. In Wicklow and Wexford, however, the rebellion raged with the most dreadful fury; in the latter of which they were computed to have 15,000 men on the 25th of May, when they surrounded and cut to pieces the North York militia at Oulard, commanded by Colonel Foot and Major Lombard. They attacked and carried the town of Enniscorthy, but with the loss of 400 men, and a party of the Meath militia fell into their hands on the 29th. The town of Wexford surrendered to them next day, when Harvey, Fitzgerald, and Colclough, who had been made prisoners on the 26th for treason, were instantly set at liberty, and Harvey was appointed their commander-in-chief. Having left a garrison in the town, the rebel commander marched on the 5th of June to attack New Ross, where Major-general Johnston obstinately defended the town for several hours, and at last forced the enemy to retreat with considerable loss. This defeat so exasperated the rebels, that they butchered 105 royalists whom they found in the jail of Wexford. Their attempt upon Gorey was ineffectual, as well as that upon Newton Barry on the third of June, where Colonel Lestrange defeated them with the loss of 500 men killed in the action. On the following day, however, the tide of fortune seemed to turn in their favour near Slievebay mountain, where the royal forces under Colonel Walpole were defeated with the loss of 54 men, and the commander himself was slain in the action. Encouraged by this success, they resolved to make an attack upon Arklow; but the grape-shot of General Needham made terrible havock among them; yet their strong position near Vinegar hill was still maintained by their main body, from which it was found impracticable to dislodge them before the 21st, when they were nearly surrounded by General Lake, with his troops in five columns, led into action by Generals Dundas, Johnson, Eustace, Duff, and Loftus. The carnage was terrible, as the rebels defended themselves with great obstinacy for an hour and a half, and lost 13 pieces of cannon. The town of Wexford surrendered next day, and on the 26th Harvey and Colclough were apprehended on one of the Saltee islands, who were tried and executed, together with Keughe, the rebel governor of Wexford.

The details of carnage and bloodshed are by no means agreeable to the feelings of humanity, yet a regard to historical truth obliges us to give them, but in as concise a manner as we possibly can. The rebels gained possession of Antrim about the 7th of June, but were soon obliged to abandon it by the exertions of General Nugent. Still, however, a spirit of insurrection continued formidable in the counties of Antrim and Down; but the rebels were defeated on the 12th at Ballynahinch, where they lost upwards of 400 men, and the royal forces only 20 in killed and wounded. Munro, their general, was taken prisoner and executed. It is to be lamented that both rebels and royalists seemed, during this unnatural contest, to be such utter strangers to every principle of humanity, that some have deemed it a very difficult matter to determine which party was the worst, although the bishop of Killala, who suffered much for his attachment to government, gives it against the latter. This, however, was destined to be terminated in a very short time, for Marquis Cornwallis was now appointed lord-lieutenant of Ireland, and arrived in Dublin on the 10th of June.

The

Ireland.

The first measure, adopted by his excellency, soon after his arrival, had a more powerful effect in crushing the rebellion than all the rigorous measures formerly pursued. On the 7th of July he made an offer of his majesty's pardon to all who should surrender before a certain day. The consequence of this proclamation was, that numbers returned to their allegiance, and delivered up all the arms in their possession. Some, however, of the most notorious offenders were tried by a special commission, condemned, and executed, such as J. and H. Sheares, M'Cann, Byrne, and others. Mr Oliver Bond, who was condemned on the 23d of July, had powerful interest made for him in order to save his life on account of his respectable connexions. The sentence of death was to be changed into banishment, on condition he would tell all he knew respecting the rebellion. He was accordingly pardoned, but his death happened soon after. Some of the most desperate of the rebels still continued to lurk about the mountains of Wicklow and Wexford, notwithstanding the proclamation of the amnesty, but these were gradually reduced.

It was the general opinion about this time, that the rebellion was completely ended, when the people were suddenly and unexpectedly alarmed by the landing of a body of French troops under General Humbert. This happened at Killala, on the 22d of August 1798. Their number being at first very much exaggerated, Lord Cornwallis designed to march against them in person at the head of the army. In the mean time Humbert marched on towards Castlebar, where he engaged the British forces under General Lake, obliging them to retreat with the loss of six pieces of cannon, and a considerable number of men. Lord Cornwallis came up with the French near Castlebar, and forced them to retreat; and General Humbert having been joined by a number of the rebels, he made a circuitous march in order to favour their escape, in consequence of which the greater part of them got away in safety. Ninety-three of them and three of their generals were taken prisoners. The French having surrendered, the public were astonished to find that this tremendous army amounted to no more than 844 men!

119 A body of French lands in Ireland.

On the 16th of September a French brig made its appearance off the isle of Rutland, on the north-west coast of Donegal, where the crew landed, together with General Rey and the celebrated Napper Tandy, sustaining the rank of a French general of brigade. On inquiring after Humbert, they seemed astonished at being informed that he and his men were prisoners. In the end of September a ship of the line and eight frigates, with troops and ammunition for Ireland, sailed from Brest harbour; but the coast was too well defended by the squadron under the command of Sir J. B. Warren, for such an armament to be successful. The ship of the line, called the Hoche, struck after a gallant defence; and the whole squadron was captured, with the exception of two frigates. This defeat was a death-blow to the hopes of the French as well as to the Irish rebels. The celebrated Theobald Wolfe Tone was found among the prisoners in the Hoche, who was considered as the ablest man at Paris from Ireland, in respect of negociating. He was tried by a court martial at Dublin, where it was allowed that he made a very manly defence, neither denying nor excusing his crime, but resting the merits of his plea on the idea of his being, as he thought, a citizen of France, and an officer in the service of that country. His arguments, however, were ineffectual, and the court would not even grant his request to be shot rather than hanged, in consequence of which he committed suicide in prison. The spirit of rebellion might be said to die with this wonderful man; for the few rebels who still continued with General Holt, the last of the rebel chiefs, gradually laid down their arms, as did Holt himself, who was banished for life.

Ireland.

At the termination of this horrible contest, it was computed that not fewer than 30,000 persons lost their lives, independent of many thousands who were wounded or transported.

The only remaining event of any importance connected with the history of this country, is its union with Great Britain. This event had been long in contemplation, but it was first announced in the British house of commons on the 22d of January 1799, by a message from his majesty, conceived in these words: "George R. His majesty is persuaded, that the unremitting industry with which our enemies persevere in their avowed design of effecting the separation of Ireland from this country, cannot fail to engage the particular attention of parliament; and his majesty recommends it to this house, to consider of the most effectual means of finally defeating this design, by disposing the parliaments of both kingdoms, to provide in the manner which they shall judge most expedient, for settling such a complete and final adjustment, as may best tend to improve and perpetuate a connection essential for their common security, and consolidate the strength, power, and resources of the British empire." On the 31st the measure was taken into consideration, when Mr Pitt moved seven resolutions as the basis of it, which were opposed by Mr Sheridan, who gave it as his decided opinion, that the fair and free approbation of parliament could never be ascertained, while any of its members were under government influence, on which account he opposed the union; as did also Messrs Grey, Tierney, Jones, Sir F. Burdett, General Fitzpatrick, Dr Lawrence and others. It also met with considerable opposition in the house of peers, and in the Irish parliament the opposition was formidable. In the address to his majesty, the paragraph recommending an union was voted to be expunged, by a majority of 111 against 106, in consequence of which the city of Dublin was twice illuminated. In the house of peers, however, a majority appeared in favour of the union; and when it was introduced in form by a message from the lord-lieutenant, it was carried in favour of the union, after a long and interesting debate, by a majority of 161 against 115. The articles of the intended union were transmitted to England by the lord-lieutenant; they were again submitted to the British parliament on the 2d of April; on the 2d of July the bill received the royal assent, and the union took place on the 1st of January 1801.

120 Union with Ireland.

In consequence of this union, which we trust will prove an unspeakable blessing to both countries, the Irish are to have a share of all the commerce of Great Britain, with the exception of such parts of it as belong to chartered companies, and consequently not free to the inhabitants of the British empire indiscriminately.

The

IRELAND.
English Miles.
5 10 20 30 40 50
10 9 8 7 6
Longitude West from Greenwich
Donegal Bay
Galway Bay
Dingle Bay
Bantry Bay
Dublin Bay
Cape Clear
ULSTER
CONNAUGHT
LEINSTER
MUNSTER
LONDONDERRY
TYRONE
DONEGAL
FERMANAGH
ARMAGH
DOWN
ANTRIM
MONAGHAN
CAVAN
LEITRIM
SLIGO
MAYO
GALWAY
ROSCOMMON
LONGFORD
WESTMEATH
MEATH
LOUTH
KING'S
QUEEN'S
KILDARE
WICKLOW
WEXFORD
CARLOW
KILKENNY
TIPPERARY
WATERFORD
LIMERICK
CLARE
KERRY
CORK
Londonderry
Coleraine
Ballycastle
Giant's Causeway
Lough Foyle
Lough Swilly
Lough Neagh
Lough Erne
Lough Corrib
Lough Mask
Lough Ree
Lough Derg
Lough Allen
Lough Gill
Lough Gara
Lough Arrow
Lough Key
Lough Gur
Lough Leane
Lough Ennell
Lough Owel
Lough Sheelin
Lough Conn
Lough Carra
Lough Melvin
Lough Swilly
Lough Foyle
Strangford Lough
Carlingford Lough
Dundalk Bay
Clew Bay
Killala Bay
Sligo Bay
Tralee Bay
Bantry Bay
Dublin Bay
Galway Bay
Donegal Bay
Belfast
Armagh
Downpatrick
Newry
Dundalk
Drogheda
Dublin
Kildare
Naas
Wicklow
Arklow
Wexford
New Ross
Waterford
Clonmel
Carlow
Kilkenny
Tullow
Enniscorthy
Gorey
Tipperary
Cashel
Limerick
Ennis
Kilrush
Tralee
Killarney
Dingle
Cork
Youghal
Kinsale
Bandon
Skibbereen
Bantry
Mallow
Fermoy
Middleton
Castlemartyr
Cape Clear
Sligo
Ballina
Castlebar
Westport
Galway
Tuam
Roscommon
Boyle
Longford
Athlone
Mullingar
Trim
Navan
Kells
Cavan
Ballyshannon
Donegal
Letterkenny
Derry
Coleraine
Ballymena
Antrim
Belfast
Newtownards
Downpatrick
Banbridge
Lurgan
Portadown
Armagh
Dungannon
Omagh
Enniskillen
Monaghan
Clones
Carrickmacross
Ardee
Drogheda
Dundalk
Inishowen
Malin Head
Fair Head
Rathlin I.
Tory I.
Arran Is.
Aran Is.
Valentia I.
Skellig Rocks
Inishbofin I.
Achill I.
Clare I.
Inishturk I.
Inishkea I.
Mweelrea Mt.
Croagh Patrick
Nephin
Ox Mts.
Slieve League
Errigal
Sperrin Mts.
Mourne Mts.
Slieve Donard
Wicklow Mts.
Blackstairs Mts.
Comeragh Mts.
Galtee Mts.
Knockmealdown Mts.
Slieve Bloom Mts.
Devil's Bit Mt.
Keeper Mt.
Slieve Aughty Mts.
Maumturk Mts.
Twelve Pins
Partry Mts.
Nore R.
Barrow R.
Suir R.
Blackwater R.
Lee R.
Shannon R.
Boyne R.
Liffey R.
Slaney R.
Foyle R.
Bann R.
Erne R.
Moy R.
Corrib R.
Inny R.
Brosna R.
Kenmare River
Dunmanus Bay
Roaringwater Bay
Kilkee Bay
Tralee Bay
Clew Bay
Killala Bay
Sligo Bay
Donegal Bay
Lough Swilly
Lough Foyle
Strangford Lough
Carlingford Lough
Dundalk Bay
Dublin Bay
Galway Bay
Tralee Bay
Dingle Bay
Bantry Bay
Kenmare River
Dunmanus Bay
Roaringwater Bay
Kilkee Bay
Longitude West 8 from Greenwich
Published by Arrowsmith 10 Soho Square 1818

The commons of Ireland are represented by a hundred members in the imperial parliament; the spiritual and temporal peerage of that country by four bishops and twenty-eight lay-lords, who are elected by the bishops and peers of Ireland, and hold their seats for life; and the title of his Britannic majesty is "king of the united kingdom of Great Britain and Ireland, defender of the faith;" the title of king of France being now laid aside. The former laws and courts of justice in Ireland are still retained, as also the court of chancery, and the king of Great Britain is still represented by a lord-lieutenant. No part of the debt contracted by Britain prior to the union is to be paid by Ireland, which only contributes to the expences of the empire in the ratio of 1 to $7\frac{1}{2}$. But as this in time might prove extravagantly favourable to that country, in consequence of a rapid increase of its trade and commerce, it may be revised and altered by parliament in the course of twenty years. By one clause of the act of union it is declared, that such peers of Ireland as are not elected into the house of lords, are competent to sit in the house of commons as representatives of British towns and counties, on condition that they give up all the privileges of the peerage during their continuance in the lower house.

121 Climate, &c. of Ireland.

The climate of Ireland would almost perfectly agree with that of England, were the soil equally improved, being abundantly fruitful both in corn and grass, especially the latter; in consequence of which, an infinite number of black cattle and sheep are bred, particularly in the province of Connaught. Few countries produce finer grain than that which grows in the improved parts of this kingdom. The northern and eastern counties are best cultivated and inclosed, and the most populous.

Ireland is known to have many rich mines; and there is no inconsiderable prospect of gold and silver in some parts of the kingdom. No country in the world abounds more in beautiful lakes, both fresh and salt water ones; and it is also plentifully watered with many beautiful rivers. The commodities which Ireland exports, as far as her present trade will permit, are hides, tallow, beef, butter, cheese, honey, wax, hemp, metals, and fish: wool and glass were, till December 23. 1779, prohibited; but her linen trade is of late grown of very great consequence. England, in the whole, is thought to gain yearly by Ireland upwards of 1,400,000l.; and in many other respects she must be of very great advantage to that kingdom. Formerly, indeed, she was rather a burden to her elder sister than any benefit; but the times are changed now, and improve every day.

122 Linen manufacture early introduced.

Mr O'Halloran says, the linen manufacture was carried on in Ireland in very early days to a great extent; and Gratianus Lucius quotes a description of the kingdom, printed at Leyden in 1627; in which the author tells us, "That this country abounds with flax, which is sent ready spun in large quantities to foreign nations. Formerly (says he) they wove great quantities of linen, which was mostly consumed at home, the natives requiring above 30 yards of linen in a shirt or shift." So truly expensive was the Irish fashion of making up shirts, on account of the number of plaits and folds, that, in the reign of Henry VIII. a statute passed, by which they were forbidden, under a severe penalty, to put more than seven yards of linen in a shirt or shift.

We may form some idea of what the trade of Ireland must have been in former times, when, so late as the reign of Brien Boru, who died in 1014, notwithstanding the ravages and distresses which a Danish war, of above 200 years continuance, must have produced throughout the kingdom, the annual duties arising from goods imported into the single port of Limerick, and paid in red wine, amounted to 365 pipes! Even so lately as the last century, it is scarcely credible what riches this city derived from the bare manufacture of shoes, which were exported in amazing quantities; whereas now, instead of shoes and boots, we see the raw hides shipped off for foreign markets.

No country in the world seems better situated for a maritime power than Ireland, where the ports are convenient to every nation in Europe, and the havens safe and commodious. The great plenty of timber, the superior excellence of the oak, and the acknowledged skill of her ancient artizans in wood-works, are circumstances clearly in her favour. That the Irish formerly exported large quantities of timber, is manifest from the churches of Gloucester, Westminster monastery and palace, &c. being covered with Irish oak.

123 Government, population, &c.

The government of the kingdom is in the hands of a viceroy, or lord-lieutenant, who lives in very great splendour. In his absence there are lords justices (styled their *excellencies*), generally three in number, viz. lord primate, lord high chancellor, and, before the union, the speaker of the house of commons. The parliament of Ireland, while it existed, was regulated in the same way as the British parliament.

Ireland is divided into four large provinces, and those again into 32 counties, as follows:

I. ULSTER.

Counties.	*Houses.*	*Extent*, &c.
1. Antrim	20738	Length 68 }
2. Armagh	13125	Breadth 98 } miles
3. Cavan	9268	Circumference 460 }
4. Down	26090	Irish plantation acres, 2836837;
5. Donnegal	12357	English acres, 4491205.
6. Fermanagh	5674	Parishes, 365
7. Londonderry	14527	Boroughs, 29
8. Monaghan	26637	Baronies, 55
9. Tyrone	16545	Archbishopric, 1
		Bishoprics, 6
	144961	Market-towns, 58

II. LEINSTER.

1. Caterlogh, or Carlow	5444	Length 104 }
		Breadth 55 } miles
2. Dublin	24145	Circumference 360 }
3. Kildare	8887	Irish acres, 2642958; or
4. Kilkenny	3231	4281155 English.
5. King's county	9294	Parishes, 858
6. Longford	6057	Boroughs, 53
7. Lowth	8150	Baronies, 99
8. Meath (East)	14000	Market-towns, 63
9. Queen's county	11226	Archbishopric, 1
		Bishoprics, 3
10. Westmeath	9621	The rivers are, the Boyne,
11. Wexford	13015	Barrow, Liffy, Noir, and the
12. Wicklow	7781	May.
	120851	

Ireland.

III. MUNSTER.

Counties.	*Houses.*	*Extent*, &c.		
1. Clare	11381	Length	100	
2. Cork	47334	Breadth	107	miles
3. Kerry	11653	Circumference	600	
4. Limerick	19380	Irish acres 3289932;		5329146
5. Tipperary	18325	Parishes, 740		[English
6. Waterford	9485	Boroughs, 26		
		Baronies, 63		
	117558	Archbishopric, 1		
		Bishops, 6		

IV. CONNAUGHT.

1. Galway	15576	Length	90	
2. Leitrim	5156	Breadth	80	miles
3. Mayo	15089	Circumference	500	
4. Roscommon	8780	Irish acres 2272915;		3681746
5. Sligo	5970	Parishes, 330		[English
		Boroughs, 10		
	50571	Baronies, 43		
		Archbishopric, 1		
		Bishop, 1		
		Rivers are the Shannon, May, Suck, and Gyll.		

An account of the actual population of Ireland, drawn from a survey by government, is a great desideratum in the statistics of the country. But it is likely to be soon supplied, as it is understood that the census now taking in Great Britain (1821) is to be extended to the sister country. The following table shows with what rapidity the numbers of the people have increased within the last 50 years.

	Souls.
In 1754 Ireland contained	2,372,634
1767	2,544,276
1785	2,845,932
1791	4,206,612

It is believed, on good grounds, that the population at present is not less than 5,500,000.

It has been frequently observed by the most celebrated writers on political arithmetic, that plenty of food, frequency of marriage, a salubrious climate, a mild and equitable government, and an increased demand for labour, are the never failing criteria of an increasing population in any country whatever. The three first of these have contributed in a very powerful manner to increase the population of Ireland in the 18th century. The climate of that country has changed for the better in a most astonishing degree since the middle of the 17th century, and the extensive forests with which it once abounded, no longer exist, to obstruct the circulation of a free current of air.

The agriculture of Ireland is, generally speaking, in a very backward state. With a few exceptions, the farmers are destitute of capital, and labour small crofts which they hold of middle-men interposed between them and the landlord. The leases are generally of long continuance; three lives, or 31 years, is a common period. In a very great proportion of the country the lands are cultivated with the spade. The capital laid out in the improvement of the soil is extremely small. In 1799, Mr Young calculated, that converting Irish acres into English, it would require an outlay of 5l. an acre to place Ireland on a footing with England in this respect, or an outlay of 88,341,136l. for the whole country. From the change in the value of money, Mr Wakefield has since calculated that the sum for this purpose would be 120,000,000l. independently altogether of the capital which the British agriculturist brings to his farm in order to carry on the cultivation of the land. Notwithstanding this disadvantage the rent of land in Ireland is very high. Mr Wakefield estimates the average rent of all the lands in the island at 17s. per English acre, and the total rental of the country at 17,228,540l. in Irish money. When it is considered how little capital is thus sunk in the Irish soil, and recollected that the average rent of England is only 20s. an acre, even under the superior mode of cultivation which is there pursued, it is obvious how much the proportion of the produce of the soil which goes to the landlord has encroached on what should be left as a remuneration to the farmer.

Ireland.

The manufactures of Ireland are now very considerable, particularly the linen manufacture. It enhances the value of this branch of industry to the Irish people, that the raw material used is almost entirely raised within the country. In 1810, the number of acres under flax was little short of 100,000; which, at 30 stone an acre, and 10s. 6d. the stone, will give an annual produce worth 1,500,000l. The flax is still spun chiefly by the hand, though machinery has been partially introduced. The average earnings of a linen weaver may be estimated at 7s. per week. The annual export of linen at different periods was as follows.

	Yards.
Average from 1700 to 1750	4,000,000
1757 to 1763	14,511,978
1770 to 1777	20,252,239
in 1800	35,676,908
1805	42,988,621
1809	43,904,382

The official value of the linen exported from Ireland, was

1809	L.2,933,109
1813	2,389,722
1820	2,317,411

Of this quantity, it is computed that upwards of 2,000,000l. comes to Great Britain.

The cotton manufacture has been established in Ireland, but has made much less progress than in England and Scotland. The import of cotton wool in 1810 consisted of 32,257 cwt. and of cotton yarn 1,057,115 lbs. The official value of the cotton goods exported in 1820, was only 54,777l.

The woollen manufacture was long depressed by the jealousy of England, and exists only to a very inconsiderable extent. The woollen goods made are chiefly coarse fabrics for domestic use.

The distilleries of Ireland are very extensive; but the quantity of spirits made at the unlicensed stills is, in all probability, much greater. The quantity of corn spirits which paid duty in Ireland was,

	Gallons.
In 1803	4,426,085
1808	5,707,158
1813	4,085,913

The

Ireland

The commerce of Ireland has experienced a pretty rapid increase during the last 50 years, as will be seen from the following table.

	Imports. Official value.	Exports. Official value.
1777	L.2,762,298	L.3,183,992
1800	4,657,784	4,350,640
1814	8,170,820	7,088,756

The revenue of Ireland is principally derived from customs, excise, stamps, and post duties; and from assessed taxes on hearths, windows, houses, carriages, servants, and horses. The net revenue of Ireland in 1791, was 1,184,684l. In 1800, it was 2,805,536l. and in 1815, it was 5,525,699l.

According to Young, Newenham, and others, the soil in point of fertility even surpasses that of England; it contains not such a large proportion of waste land, and many extensive tracts of the productive soil seem to be wholly unrivalled in respect of fertility. For an ample detail of the uncommon richness and fertility of the soil of Ireland in general, we refer our readers to the instructive Tour of Mr A. Young, which contains many experiments made by himself on the soils of different counties.

What a valuable acquisition to the British empire, of which it now happily forms a constituent part, since it can augment the military strength of the whole in a very powerful manner, and make such respectable additions to the British revenue as cannot fail to result from its flourishing commerce. Ireland in a state of enmity against Britain, both weakened the latter, and rendered herself vulnerable in a high degree; but since both are happily united, and have only one common interest, we trust that the most daring enemy shall ever find them invulnerable.

124 Appearance and character of the inhabitants.

Beauty seems to be more diffused in England, among the lower ranks of life, than in Ireland; which may, however, be attributed to the modes of living. In England, the meanest cottager is better fed, better lodged, and better dressed, than the most opulent farmers here, who, unaccustomed to what our peasants reckon the comforts of life, know no luxury but in deep potations of aquavitæ.

From this circumstance, we may account for a fact reported by the officers of the army here. They say, that the young fellows of Ireland, who offer to enlist, are more generally below the given height than in England. There can be no appeal from their testimony; for they were Irish, and the standard is an infallible test. No reason, indeed, can be given why the causes which promote or prevent the growth of other animals, should not have similar effects upon the human species. In England, where there is no stint of provisions, the growth is not checked; but, on the contrary, it is extended to the utmost bound of nature's original intention; whereas, in Ireland, where food is neither in the same quantity nor of the same quality, the body cannot expand itself, but is dwarfed and stunted in its dimensions. The gentlemen of Ireland are full as tall as those of England: the difference, then, between them and the commonalty, can only proceed from the difference of food.

The inhabitants, in general, of this kingdom are very far from, what they have too often and unjustly been represented by those of our country who never saw them, a nation of wild Irish. Miserable and oppressed, as by far too many of them are, an Englishman will find as much civility in general, as amongst the same class in his own country: and, for a small pecuniary consideration, they will exert themselves to please you as much as any people perhaps in the king's dominions. Poverty and oppression will naturally make mankind sour, rude, and unsociable; and eradicate, or at least suppress, all the more amiable principles and passions of humanity. But it should seem unfair and ungenerous to judge of, or decide against, the natural disposition of a man reduced by indigence and oppression almost to desperation. Let commerce, agriculture, and arts, but call forth the dormant activity of their genius, and rouse the native spirit of enterprise, which now lies torpid within them; let liberal laws unfetter their minds, and plenty cheer their tables; they will soon shew themselves deserving to rank with the most respectable societies in Europe. Ireland.

"The lower Irish, (says Carr †), are remarkable for their ingenuity and docility, and a quick conception; in these properties they are equalled only by the Russians. It is curious to see with what scanty materials they will work; they build their own cabins, and make bridles, stirrups, cruppers, and ropes for every rustic purpose, of hay; and British adjutants allow that Irish recruits are sooner made soldiers of than English ones.

† *Stranger in Ireland*, p. 217.

"That the Irish are not naturally lazy, is evident from the quantity of laborious work which they will perform, when they have much to do, which is not frequently the case in their own country, and are adequately paid for it, so as to enable them to get proper food to support severe toil. Upon this principle, in England, an Irish labourer is always preferred.

"The handsomest peasants in Ireland are the natives of Kilkenny and the neighbourhood; and the most wretched and squalid near Cork and Waterford, and in Munster and Connaught. In the county of Roscommon the male and female peasantry and horses are handsome, the former are fair and tall, and possess great flexibility of muscle: the men are the best leapers in Ireland: the finest hunters and most expert huntsmen are to be found in the fine sporting county of Fermanagh. In the county of Meath the peasants are very heavily limbed. In the county of Kerry, and along the western shore, the peasants very much resemble the Spaniards in expression of countenance, and colour of hair.

"The instruction of the common people is in the lowest state of degradation. In the summer a wretched uncharactered itinerant derives a scanty and precarious existence by wandering from parish to parish, and opening a school in some ditch covered with heath and furze, to which the inhabitants send their children to be instructed by the miserable breadless being, who is nearly as ignorant as themselves; and in the winter these pedagogue pedlars go from door to door offering their services, and pick up just sufficient to prevent themselves from perishing by famine. What proportion of morals and learning can flow from such a source into the mind of the ragged young pupil, can easily be imagined, but cannot be reflected upon without serious

Ireland. concern. A gentleman of undoubted veracity stated, not long since, before the Dublin association for distributing bibles and testaments amongst the poor, that whole parishes were without a bible.

"Their hospitality, when their circumstances are not too wretched to display it, is remarkably great. It is thus beautifully described by Mr Curran. 'The hospitality of other countries is a matter of necessity, or convention: in savage nations, of the first; in polished, of the latter: but the hospitality of an Irishman is not the running account of *posted* and *ledgered* courtesies, as in other countries: it springs, like all his other qualities, his faults, his virtues, directly from the heart. The heart of an Irishman is by nature bold, and he confides; it is tender, and he loves; it is generous, and he gives; it is social, and he is hospitable."

125 Account of the bogs in Ireland.

The bogs wherewith Ireland is in some places overgrown, are not injurious to health, as is commonly imagined; the watery exhalations from these are neither so abundant nor so noxious as those from marshes, which become prejudicial from the various animal and vegetable substances which are left to putrefy as soon as the waters are exhaled by the sun. Bogs are not, as one might suppose from their blackness, masses of putrefaction; but, on the contrary, they are of such a texture, as to resist putrefaction above any other substance we know of. A shoe, all of one piece of leather, very neatly stitched, was taken out of a bog some years ago, yet entirely fresh;—from the very fashion of which, there is scarce room to doubt that it had lain there some centuries. Butter, called *rouskin*, has been found in hollowed trunks of trees, where it had been hid so long, that it was become hard and almost friable, yet not devoid of unctuosity: that the length of time it had been buried was very great, we learn from the depth of the bog, which was ten feet, that had grown over it. But the common phenomenon of timber-trees dug out of these bogs not only sound, but also so embalmed as afterwards to defy the injuries of time, demonstrate the antiseptic quality of them. The horns of the moose-deer must have lain many centuries in a bog; for the Irish histories do not recognize the existence of the animal whereon they grew. Indeed, human bodies have, in many places, been dug up entire, which must have lain there for ages. The growth of bogs, however, is variable in different places, from the variety of conditions in the situation, soil, humidity, and quantity of vegetable food; in some places it is very rapid, in others very slow; and therefore their altitudes cannot afford any certain measure of time. In the manufacturing counties of the north, peat-fuel has become so scarce, that turbaries let from five to eight guineas an acre. In some places they are so eradicated, there does not remain a trace of them, the ground being now converted into rich meadows and sweet pastures. Ireland.

For a copious account of the statistics of Ireland, see the article IRELAND, in the SUPPLEMENT.

I R E

Irenæus || Iridium.

IRENÆUS, St, a bishop of Lyons, was born in Greece about the year 120. He was the disciple of Pappias and St Polycarp, by whom, it is said, he was sent into Gaul in 157. He lived at Lyons, where he performed the office of a priest; and in 178 was sent to Rome, where he disputed with Valentinus, and his two disciples Florinus and Blastus. At his return to Lyons, he succeeded Photinus, bishop of that city; and suffered martyrdom in 202, under the reign of Severus. He wrote many books in Greek, of which there only remains a barbarous Latin verson of his five books against heretics, some Greek fragments in different authors, and Pope Victor's letter mentioned by Eusebius. The best editions of his works are those of Erasmus, in 1526; of Grabe, in 1702; and of Father Massuet, in 1710.

He ought not to be confounded with St Irenæus the deacon, who in 275 suffered martyrdom in Tuscany, under the reign of Aurelian; nor with St Irenæus, bishop of Sirmich, who suffered martyrdom on the 25th of March 304, during the persecution of Dioclesian and Maximianus.

IRENE, empress of the east, celebrated for her valour, wit, and beauty; but detestable for her cruelty, having sacrificed her own son to the ambition of reigning alone. She died in 803.

IRESINE, a genus of plants belonging to the diœcia class, and in the natural method ranking under the 54th order, *Miscellaneæ*. See BOTANY *Index*.

IRIDIUM, a metal obtained from crude platina. See CHEMISTRY, N° 2153, p. 699.

I R O

Iris || Iron-sick.

IRIS, in *Physiology*, the rainbow. The word is Greek, ἶρις, supposed by some to be derived from ἴρω, "I speak, I tell;" as being a meteor that is supposed to foretel, or rather to declare rain. See RAINBOW.

Lunar IRIS, or *Moon-rainbow*. See *RAINBOW, Lunar*.

IRIS, in *Anatomy*, a striped variegated circle round the pupil of the eye, formed of a duplicature of the uvea. See ANATOMY *Index*.

IRIS is also applied to those changeable colours which sometimes appear in the glasses of telescopes, microscopes, &c. so called from their similitude to a rainbow. The same appellation is also given to that coloured spectrum, which a triangular prismatic glass will project on a wall, when placed at a due angle in the sun-beams.

IRIS, the *Flower de Luce*, or Flag-flower, &c. a genus of plants, belonging to the triandria class, and in the natural method ranking under the sixth order, *Ensatæ*. See BOTANY *Index*.

IRON, one of the metals, and one of the hardest and most useful, as well as the most abundant. See CHEMISTRY and MINERALOGY *Index*.

Iron-making, the art of extracting iron from the ore. See SUPPLEMENT.

Iron-Moulds, and spots of ink in linen, may be taken out by moistening the stained part in a solution of oxalic acid in distilled water, and then washing it out in pure water.

Iron-Sick, in the sea-language, is said of a ship or boat,

Iron-sick / Irritability.

boat, when her bolts or nails are so eaten with rust, and so worn away, that they occasion hollows in the planks, whereby the vessel is rendered leaky.

Iron-Wood, in *Botany*. See SIDEROXYLUM, BOTANY *Index*.

Iron-Wort, in *Botany*. See SIDERITIS, BOTANY *Index*.

IRONY, in *Rhetoric*, is when a person speaks contrary to his thoughts, in order to add force to his discourse; whence Quintilian calls it *diversiloquium*.

Thus, when a notorious villain is scornfully complimented with the title of a very honest and excellent person; the character of the person commended, the air of contempt that appears in the speaker, and the exorbitancy of the commendations, sufficiently discover the dissimulation of irony.

Ironical exhortation is a very agreeable kind of trope; which, after having set the inconveniences of a thing in the clearest light, concludes with a feigned encouragement to pursue it. Such is that of Horace, when, having beautifully described the noise and tumults of Rome, he adds ironically,

Go now, and study tuneful verse at Rome!

IROQUOIS, the name of five nations in North America. They occupied an extensive tract of country near Lake Ontario, and make a considerable figure in the early history of British America. They are now greatly reduced.

IRRADIATION, the act of emitting subtile effluvia, like the rays of the sun, every way. See EFFLUVIA.

IRREGULAR, something that deviates from the common forms or rules; thus, we say an irregular fortification, an irregular building, an irregular figure, &c.

IRREGULAR, in *Grammar*, such inflections of words as vary from the general rules; thus we say, irregular nouns, irregular verbs, &c.

The distinction of irregular nouns, according to Mr Ruddiman, is into three kinds, viz. variable, defective, and abundant; and that of irregular verbs into anomalous, defective, and abundant.

IRRITABILITY, in *Anatomy* and *Medicine*, a term first invented by Glisson, and adopted by Dr Haller to denote an essential property of all animal bodies; and which, he says, exists independently of and in contradistinction to sensibility. This ingenious author calls that part of the human body *irritable*, which becomes shorter upon being touched; *very irritable*, if it contracts upon a slight touch; and the contrary, if by a violent touch it contracts but little. He calls that a sensible part of the human body, which upon being touched transmits the impression of it to the soul: and in brutes, he calls those parts sensible, the irritation of which occasions evident signs of pain and disquiet in the animal. On the contrary, he calls that insensible, which being burnt, tore, pricked, or cut till it is quite destroyed, occasions no sign of pain nor convulsion, nor any sort of change in the situation of the body. From the result of many cruel experiments he concludes, that the epidermis is insensible; that the skin is sensible in a greater degree than any other part of the body; that the fat and cellular membrane are insensible; and the muscular flesh sensible, the sensibility of which he ascribes rather to the nerves than to the flesh itself. The tendons, he says, having no nerves distributed to them, are insensible. The ligaments and capsulæ of the articulations are also concluded to be insensible; whence Dr Haller infers, that the sharp pains of the gout are not seated in the capsulæ of the joint, but in the skin, and in the nerves which creep upon its external surface. The bones are all insensible, says Dr Haller, except the teeth; and likewise the marrow. Under his experiments the periosteum and pericranium, the dura and pia mator, appeared insensible; and he infers, that the sensibility of the nerves is owing to the medulla, and not to the membranes. The arteries and veins are held susceptible of little or no sensation, except the carotid, the lingual, temporal, pharyngal, labial, thyroidal, and the aorta near the heart; the sensibility of which is ascribed to the nerves that accompany them. Sensibility is allowed to the internal membranes of the stomach, intestines, bladder, ureters, vagina, and womb, on account of their being of the same nature with the skin: the heart is also admitted to be sensible: but the lungs, liver, spleen, and kidneys, are possessed of a very imperfect, if any, sensation. The glands, having few nerves, are endowed with only an obtuse sensation. Some sensibility is allowed to the tunica choroidis and the iris, though in a less degree than the retina; but none to the cornea. Dr Haller concludes, in general, that the nerves alone are sensible of themselves; and that, in proportion to the number of nerves apparently distributed to particular parts, such parts possess a greater or less degree of sensibility. Irritability.

Irritability, he says, is so different from sensibility, that the most irritable parts are not at all sensible, and *vice versa*. He alleges facts to prove this position, and also to demonstrate, that irritability does not depend upon the nerves, which are not irritable, but upon the original formation of the parts which are susceptible of it. Irritability, he says, is not proportioned to sensibility; in proof of which, he observes, that the intestines, though rather less sensible than the stomach, are more irritable; and that the heart is very irritable, though it has but a small degree of sensation.

Irritability, according to Dr Haller, is the distinguishing characteristic between the muscular and cellular fibres; whence he determines the ligaments, periosteum, meninges of the brain, and all the membranes composed of the cellular substance, to be void of irritability. The tendons are unirritable; and though he does not absolutely deny irritability to the arteries, yet his experiments on the aorta produced no contraction. The veins and excretory ducts are in a small degree irritable, and the gall-bladder, the ductus choledochus, the ureters and urethra, are only affected by a very acrid corrosive; but the lacteal vessels are considerably irritable. The glands and mucous sinuses, the uterus in quadrupeds, the human matrix, and the genitals, are all irritable; as are also the muscles, particularly the diaphragm. The œsophagus, stomach, and intestines, are irritable: but of all the animal organs the heart is endued with the greatest irritability. In general, there is nothing irritable in the animal body but the muscular fibres: and the vital parts are the most irritable. This power of motion, arising from irritations, is supposed

Irritability ‖ Isaac.

to be different from all other properties of bodies, and probably resides in the glutinous mucus of the muscular fibres, altogether independent of the influence of the soul. The irritability of the muscles is said to be destroyed by drying of the fibres, congealing of the fat, and more especially by the use of opium in living animals. The physiological system, of which an abstract has been now given, has been adopted and confirmed by Castell and Zimmermann, and also by Dr Brocklesby, who suggests, that irritability, as distinguished from sensibility, may depend upon a series of nerves different from such as serve either for voluntary motion or sensation. This doctrine, however, has been controverted by M. le Cat, and particularly by Dr Whytt in his Physiological Essays. See also ANATOMY, N° 86, *et seq.* and N° 136.

IRROGATIO, a law term amongst the Romans, signifying the instrument in which were put down the punishments which the law provided against such offences as any person was accused of by a magistrate before the people. These punishments were first proclaimed *viva voce* by the accuser, and this was called *Inquisitio*: The same, being immediately after expressed in writing, took the name of *Rogatio*, in respect of the people, who were to be consulted or asked about it, and was called *Irrogatio* in respect of the criminal, as it imported the mulct or punishment assigned him by the accuser.

IRROMANGO, or ERROMANGO, one of the New Hebrides islands, is about 24 or 25 leagues in circuit; the middle of it lies in E. Long. 169. 19. S. Lat. 18. 54. The inhabitants are of the middle size, and have a good shape and tolerable features. Their colour is very dark; and they paint their faces, some with black, and others with red pigment: their hair is curly and crisp, and somewhat woolly. Few women were seen, and those very ugly: they wore a petticoat made of the leaves of some plant. The men were quite naked, excepting a belt tied about the waist, and a piece of cloth, or a leaf, used for a wrapper. No canoes were seen in any part of the island. They live in houses covered with thatch: and their plantations are laid out by line, and fenced round. An unlucky scuffle between the British sailors and these people, in which four of the latter were desperately wounded, prevented Captain Cook from being able to give any particular information concerning the produce, &c. of this island.

IRTIS, a large river of Asia, in Siberia, which rises among the hills of the country of the Kalmucks, and, running north-east, falls into the Oby near Tobolsk. It abounds with fish, particularly sturgeon, and delicate salmon.

IRVINE, a sea-port and borough town of Scotland, in the bailiwick of Cunningham, and county of Ayr; seated at the mouth of a river of the same name on the frith of Clyde, in W. Long. 2. 55. N. Lat. 55. 36. This port had formerly several busses in the herring-fishery. A number of vessels is employed in the coal trade to Ireland, and also in the Baltic and carrying trade. Ship-building and rope-making are carried on to a considerable extent at Irvine. The population in 1811 was estimated at 5750, of which nearly 4000 were employed in trade and manufactures.

ISAAC, the Jewish patriarch, and example of filial obedience, died 1716 B. C. aged 180.

ISÆUS, a Greek orator, born at Colchis, in Syria, was the disciple of Lysias, and the master of Demosthenes; and taught eloquence at Athens, about 344 years B. C. Sixty-four orations are attributed to him; but he composed no more than 50, of which only 10 are now remaining. He took Lysias for his model, and so well imitated his style and elegance, that we might easily confound the one with the other, were it not for the figures which Isæus first introduced into frequent use. He was also the first who applied eloquence to politics, in which he was followed by his disciple Demosthenes.

Isæus ‖ Isauria.

He ought not to be confounded with Isæus, another celebrated orator, who lived at Rome in the time of Pliny the younger, about the year 97.

ISAIAH, or *the Prophecy of ISAIAH*, a canonical book of the Old Testament. Isaiah is the first of the four greater prophets; the other three being Jeremiah, Ezekiel, and Daniel. This prophet was of royal blood, his father Amos being brother to Azariah king of Judah. The five first chapters of his prophecy relate to the reign of Uzziah; the vision in the sixth chapter happened in the time of Jotham: the next chapters, to the fifteenth, include his prophecies under the reign of Ahab; and those that were made under the reigns of Hezekiah and Manasseh, are related in the next chapters to the end. Isaiah foretold the deliverance of the Jews from their captivity in Babylon by Cyrus, one hundred years before it came to pass. But the most remarkable of his predictions are those concerning the Messiah, which describe not only his descent, but all the remarkable circumstances of his life and death. The style of this prophet is noble, nervous, sublime, and florid, which he acquired by converse with men of the greatest abilities and elocution: Grotius calls him the Demosthenes of the Hebrews. However, the profoundness of his thoughts, the loftiness of his expressions and the extent of his prophecy, render him one of the most difficult of all the prophets; and the commentaries that have been hitherto written on his prophecy fall short of a full explication of it. Bishop Lowth's new translation, &c. published in 1778, throws considerable light on the composition and meaning of *Isaiah*.

ISATIS, WOAD; a genus of plants belonging to the tetradynamia class; and in the natural method ranking under the 39th order, *Siliquosæ*. One species of this plant, the *tinctoria*, yields a colouring matter. See COLOUR-MAKING and DYEING *Index*.

ISATIS, in *Zoology*, a synonyme of the canis lagopus. See CANIS, MAMMALIA *Index*.

ISAURA, or ISAURUS, in *Ancient Geography*, a strong city at Mount Taurus, in Isauria, twice demolished; first by Perdiccas, or rather by the inhabitants, who, through despair, destroyed themselves by fire rather than fall into the hands of the enemy; again by Servilius, who thence took the surname *Isauricus*. Strabo says there were two Isauras, the old and the new, but so near that other writers took them but for one.

ISAURIA, a country touching Pamphylia and Cilicia on the north, rugged and mountainous, situated almost in Mount Taurus, and taking its name from Isaura; according to some, extending to the Mediterranean by a narrow slip. Stephanus, Ptolemy, and Zosimus, make

Isauria || Isenburg.

make no mention of places on the sea; though Pliny does, as also Strabo; but doubtful, whether they are places in Isauria Proper, or in Pamphylia, or in Cilicia.

ISAURICA, a part of Lycaonia, bordering on Mount Taurus.

ISCA DUMNIORUM, in *Ancient Geography*, a town in Britain. Now Exeter, capital of Devonshire. W. Long. 3. 40. Lat. 5. 44. Called *Caer-Isk* in British, (Camden).

ISCA *Silurum*, in *Ancient Geography*, the station of the Legio II. Augusta in Britain. Now *Caerleon*, a town of Monmouthshire, on the Uske.

ISCHALIS, or ISCALIS, in *Ancient Geography*, a town of the Belgæ in Britain. Now *Ilchester*, in Somersetshire on the river Ill.

ISCHÆUM, a genus of plants belonging to the polygamia class; and in the natural method ranking under the 4th order, *Gramina*. See BOTANY *Index*.

ISCHIA, an island of Italy, in the kingdom of Naples, about 15 miles in circumference, lying on the coast of the Terra di Lavoro, from which it is three miles distant. It is full of agreeable valleys, which produce excellent fruits. It hath also mountains on which grow vines of an excellent kind: likewise fountains, rivulets, and fine gardens.

ISCHIA, a town of Italy, and capital of an island of the same name, with a bishop's see and a strong fort. Both the city and fortress stand upon a rock, which is joined to the island by a strong bridge; the rock is about seven furlongs in circumference. The city is like a pyramid of houses piled upon one another, which makes a very singular and striking appearance. At the end of the bridge next the city are iron gates, which open into a subterraneous passage, through which they enter the city. They are always guarded by soldiers who are natives of the island. E. Long. 13. 55. N. Lat. 40. 50.

ISCHIUM, in *Anatomy*, one of the bones of the pelvis. See ANATOMY, N° 41.

ISCHURIA, ισχυρια (formed from ισχω, "I stop," and ουρον, "urine,") in *Physic*, a disease consisting in an entire suppression of urine. See MEDICINE *Index*.

ISELASTICS, a kind of games, or combats, celebrated in Greece and Asia, in the time of the Roman emperors.

The victor at these games had very considerable privileges conferred on him, after the example of Augustus and the Athenians, who did the like to conquerors at the Olympic, Pythian, and Isthmian games. They were crowned on the spot immediately after their victory, had pensions allowed them, were furnished with provisions at the public cost, and were carried in triumph to their country.

ISENACH, a town of Germany, in the circle of Upper Saxony, from whence one of the Saxon princes takes the title of *duke*. There are iron mines in the neighbourhood. E. Long. 9. 17. N. Lat. 51. 0.

ISENARTS, or EISENARTS, a considerable town of Germany, in Austria and in Stiria; famous for its iron mines. E. Long. 15. 25. N. Lat. 46. 56.

ISENBURG, a large town of Germany, capital of a county of the same name, in E. Long. 7. 14. N. Lat. 50. 28.

ISENGHEIN, a town of the Netherlands, with the title of a *principality*, seated on the river Mandera, in E. Long. 3. 18. N. Lat. 50. 44.

Isenghein || Isis.

ISERE, a department in the south-east of France, containing 3440 square miles, and 472,000 inhabitants. The southern part lies among the Alps, and is mountainous; the northern part is more level. The climate is cold. The produce consists chiefly of hemp, silk, corn, wine, oil; and the pastures are extensive. Grenoble is the chief town.

ISH, in *Scots Law*, signifies *expiry*. Thus we say "the *ish* of a lease." It signifies also *to go out*; thus we say "free *ish* and entry" from and to any place.

ISIA, Ισια, feasts and sacrifices anciently solemnized in honour of the goddess Isis.—The Isia were full of the most abominable impurities; and for that reason, those who were initiated into them were obliged to take an oath of secrecy. They held for nine days successively, but grew so scandalous, that the senate abolished them at Rome, under the consulate of Piso and Gabinius. They were re-established by Augustus, and the emperor Commodus himself assisted at them, appearing among the priests of that goddess with his head shaven, and carrying the Anubis.

ISIAC TABLE, is one of the most considerable monuments of antiquity, discovered at Rome in 1525, and supposed by the various figures in bas relief upon it, to represent the feasts of Isis, and other Egyptian deities. There have been various opinions as to the antiquity of this monument: some have supposed that it was engraved long before the time when the Egyptians worshipped the figures of men and women. Others, among whom is Bishop Warburton, apprehend, that it was made at Rome by persons attached to the worship of Isis. Dr Warburton considers it as one of the most modern of the Egyptian monuments, on account of the great mixture of hieroglyphic characters which it bears.

ISIACI, priests of the goddess Isis.—Dioscorides tells us, that they bore a branch of sea wormwood in their hands instead of olive. They sung the praises of the goddess twice a-day, viz. at the rising of the sun, when they opened her temple; after which they begged alms the rest of the day, and returning at night, repeated their orisons, and shut up the temple.

Such were the life and office of the *isiaci;* they never covered their feet with any thing but the thin bark of the plant papyrus, which occasioned Prudentius and others to say they went barefooted. They wore no garments but linen, because Isis was the first who taught mankind the culture of this commodity.

ISIDORUS, called DAMIATENSIS, or PELUSIOTA, from his living in a solitude near that city, was one of the most famous of all St Chrysostom's disciples, and flourished in the time of the general council held in 421. We have 2012 of his epistles in five books. They are short, but well written, in Greek. The best edition is that of Paris, in Greek and Latin, printed in 1638, in folio.

ISIGNI, a town of France, in Lower Normandy, with a small harbour, and well known on account of its salts works, its cyder, and its butter. W. Long. 0. 50. N. Lat. 49. 20.

ISINGLASS. See ICHTHYOCOLLA.

ISIS, a celebrated deity of the Egyptians, daugh-

ter

Isis ‖ Island.

ter of Saturn and Rhea, according to Diodorus of Sicily. Some suppose her to be the same as Io, who was changed into a cow, and restored to her human form in Egypt, where she taught agriculture, and governed the people with mildness and equity, for which reasons she received divine honours after death. According to some traditions mentioned by Plutarch, Isis married her brother Osiris, and was pregnant by him even before she had left her mother's womb. These two ancient deities, as some authors observe, comprehended all nature and all the gods of the heathens. Isis was the Venus of Cyprus, the Minerva of Athens, the Cybele of the Phrygians, the Ceres of Eleusis, the Proserpine of Sicily, the Diana of Crete, the Bellona of the Romans, &c. Osiris and Isis reigned conjointly in Egypt; but the rebellion of Typhon, the brother of Osiris, proved fatal to this sovereign. The ox and the cow were the symbols of Osiris and Isis; because these deities, while on earth, had diligently applied themselves to cultivating the earth. As Isis was supposed to be the moon, as Osiris the sun, she was represented as holding a globe in her hand, with a vessel full of ears of corn. The Egyptians believed that the yearly and regular inundations of the Nile proceeded from the abundant tears which Isis shed for the loss of Osiris, whom Typhon had basely murdered. The word *Isis*, according to some, signifies "ancient," and on that account the inscriptions on the statues of the goddess were often in these words: "I am all that has been, that shall be; and none among mortals has hitherto taken off my veil." The worship of Isis was universal in Egypt, the priests were obliged to observe perpetual chastity, their heads were closely shaved, and they always walked barefooted, and clothed themselves in linen garments. They never ate onions, they abstained from salt with their meat, and were forbidden to eat the flesh of sheep and of hogs. During the night they were employed in continual devotion near the statue of the goddess. Cleopatra, the beautiful queen of Egypt, was wont to dress herself like this goddess, and affected to be called a second Isis.

Isis, or *Thames*, a river that has its rise in Gloucestershire, and flows through only a small part of Wiltshire. It enters this county near its source, and begins to be navigable for boats at Cricklade; but after running in a serpentine manner about four miles, it leaves Gloucestershire at a village called *Castle Eaton*.

Isis, a genus of animals belonging to the order zoophyta, in the class vermes. See Helminthology *Index*.

ISLAM, or Islamism; the true faith, according to the Mahometans. See Mahometanism.

ISLAND, a tract of dry land encompassed with water; in which sense it stands contradistinguished from Continent, or Terra Firma.

Several naturalists are of opinion, that the islands were formed at the deluge; others think, that there have been new islands formed by the casting up of vast heaps of clay, sand, mud, &c.; others think they have been separated from the continent by violent storms, inundations, and earthquakes. These last have observed, that the East Indies, which abound in islands more than any other part of the world, are likewise more annoyed with earthquakes, tempests, lightnings, volcanoes, &c. than any other part. Others again conclude, that islands are as ancient as the world, and that there were some at the beginning; and among other arguments, support their opinion from Gen. x. 5. and other passages of Scripture.

Island ‖ Isle-adam.

Varenius thinks that there have been islands produced each of these ways. St Helena, Ascension, and other steep rocky islands, he supposes to have become so by the sea's overflowing their neighbouring champaigns; but by the heaping up huge quantities of sand, and other terrestrial matter, he thinks the islands of Zealand, Japan, &c. were formed. Sumatra and Ceylon, and most of the East India islands, he thinks, were rent off from the main land; and concludes, that the islands of the Archipelago were formed in the same way, imagining it probable that Deucalion's flood might contribute towards it. The ancients had a notion that Delos, and a few other islands, rose from the bottom of the sea; which, how fabulous soever it may appear, agrees with later observations. Seneca takes notice, that the island Therasia rose thus out of the Ægean sea in his time, of which the mariners were eye witnesses.

It is indeed very probable, that many islands have existed not only from the deluge, but from the creation of the world; and we have undoubted proofs of the formation of islands in all the different ways above mentioned. Another way, however, in which, islands are frequently formed in the South sea, is by the coralline insects. On this subject there is a curious dissertation by Alexander Dalrymple, Esq. in the Philosophical Transactions for the year 1768, to which we refer the reader. See also Geography *Index*.

Islands of Ice. See *Ice-Island*.

Floating Islands. Histories are full of accounts of floating islands; but the greatest part of them are either false or exaggerated. What we generally see of this kind is no more than the concretion of the lighter and more viscous matter floating on the surface of the water in cakes; and, with the roots of the plants, forming congeries of different sizes, which, not being fixed to the shore in any part, are blown about by the winds, and float on the surface. These are generally found in lakes, where they are confined from being carried too far; and, in process of time, some of them acquire a very considerable size. Seneca tells us of many of these floating islands in Italy: and some later writers have described not a few of them in other places. But, however true these accounts might have been at the time when they were written, very few proofs of their authenticity are now to be found; the floating islands having either disappeared again, or been fixed to the sides in such a manner as to make a part of the shore. Pliny tells us of a great island which at one time swam about in the lake Cutilia in the country of Reatinum, which was discovered to the old Romans by a miracle; and Pomponius tells us, that in Lydia there were several islands so loose in their foundations, that every little accident shook and removed them.

Island (or *Iceland*) Crystal. See *Crystal, Iceland*; Mineralogy *Index*.

ISLE-ADAM, a town of France, with a handsome castle,

Isle-adam ‖ Islington.

castle, and the title of a baron; seated on the river Oise, three miles from Beaumont, and 20 from Paris. E. Long. 2. 13. N. Lat. 49. 7.

Isle de-Dieu, a small island of France, in the sea of Gascony, and on the coast of Poitou, from which it is distant 14 miles. W. Long. 2. 5. N. Lat. 46. 45.

Isle-de-France, one of the twelve general governments of France, under the old division; bounded on the north by Picardy, on the west by Normandy, on the south by the government of Orleannois, and on the east by that of Champagne. It is about 90 miles in length, and as much in breadth; and is watered by the rivers Seine, Marne, Oise, and Aisne. The air is temperate, and the soil fertile; and it abounds in wine, corn, and fruits. It contains ten small districts, and Paris is the capital city.

ISLEBIANS, in ecclesiastical history, a name given to those who adopted the sentiments of a Lutheran divine of Saxony, called John Agricola, a disciple and companion of Luther, a native of Isleb, whence the name; who interpreting literally some of the precepts of St Paul with regard to the Jewish law, declaimed against the law and the necessity of good works. See Antinomians.

ISLINGTON, a village of Middlesex, on the north side of London, to which it is almost contiguous. It appears to be of Saxon origin; and in the Conqueror's time was written Isledon, or Isendon. The church is one of the prebends of St Paul's; to the dean and chapter of which a certain precinct here belongs, for the probate of wills, and granting administrations. The church was a Gothic structure, erected in 1503, and stood till 1751, when the inhabitants applied to parliament for leave to rebuild it, and soon after erected the present structure, which is a very substantial brick edifice, though it does not want an air of lightness. The number of houses in Islington exceeds 2700; and the total amount of the population, as it was estimated in 1811, was more than 15,000. The White-conduit house in this place, so called from a white stone conduit that stands before the entrance, has handsome gardens with good walks, and two large rooms, one above the other, for the entertainment of company at tea, &c. In the south-west part of this village is that noble reservoir, improperly called New River Head; though they are only two basons, which receive that river from Hertfordshire, and from whence the water is thrown by an engine into the company's pipes for the supply of London. In the red moat on the north side of these basons, called Six-Acre Field, from the contents of it, which is the third field beyond the White Conduit, there appears to have been a fortress in former days, enclosed with a rampart and ditch, which is supposed to have been a Roman camp, made use of by Suetonius Paulinus after his retreat, which Tacitus mentions, from London, before he sallied thence, and routed the Britons under their queen Boadicea; and that which is vulgarly, but erroneously, called Jack Straw's castle, is a square place in the south-west angle of the field, supposed to have been the seat of the prætorium or Roman general's tent. In this parish are two charity-schools; one founded in 1613, by Dame Alice Owen, for educating 30 children. This foundation, together with that of a row of alms-houses, are under the care of the brewers company. Here is an hospital with its chapel, and a workhouse for the poor. There is a spring of chalybeate water in a very pleasant garden, which for some years was honoured by the constant attendance of the princess Amelia, and many persons of quality, who drank the waters. To this place, which is called New Tunbridge Wells, many people resort, especially during the summer, the price of drinking the waters being 10s. 6d. for the season. Near this place is a house of entertainment, called *Saddler's Wells*, where, during the summer season, people are amused with balance-masters, walking on the wire, rope-dancing, tumbling, and pantomime entertainments.

Islington ‖ Isochronal.

ISLIP, a town of Oxfordshire, 56 miles from London, is noted for the birth and baptism of Edward the Confessor. By means of inland navigation, it has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles, in the counties of Lincoln, Nottingham, York, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. It has a good market for sheep, and some remains of an ancient palace, said to have been King Ethelred's. Here is a charity school. The chapel wherein Edward was baptized stood at a small distance north from the church, is still called the king's chapel, was entirely desecrated during Cromwell's usurpation, and converted to the meanest uses of a farm-yard; at present it has a roof of thatch. It is built of stone, 15 yards long, and 7 broad, and retains traces of the arches of an oblong window at the east end. This manor was given by Edward the Confessor to Westminster abbey, to which it still belongs.

ISMAELITES, the descendants of Ismael; dwelling from Havila to the wilderness of Sur, towards Egypt, and thus overspreading Arabia Petræa, and therefore Josephus calls Ismael the founder of the Arabs.

ISMARUS, in *Ancient Geography*, a town of the Cicones in Thrace, giving name to a lake. In Virgil it is called Ismara. Servius supposed it to be a mountain of Thrace; on which mountain Orpheus dwelt.

ISNARDIA, a genus of plants, belonging to the tetrandria class, and in the natural method ranking under the 17th order, *Calycanthemæ*. See Botany *Index*.

ISNY, a town of Germany, in the kingdom of Wirtemburg; seated on the river Isny, in E. Long. 9. 10. N. Lat. 47. 45.

ISNIC, a town of Turkey in Asia, and in Natolia, with a Greek archbishop's see. It is the ancient Nice, famous for the first general council held here in 325. There is now nothing remaining of its ancient splendour, but an aqueduct. The Jews inhabit the greatest part of it; and it is seated in a country fertile in corn and excellent wine. E. Long. 29. 50. N. Lat. 40. 16.

ISOCHRONAL, is applied to such vibrations of a pendulum as are performed in the same space of time; as all the vibrations or swings of the same pendulum are, whether the arches it describes are shorter or longer.

Isochronal line || Ispahan.

Isochronal Line, that in which a heavy body is supposed to descend without any acceleration.

ISOCRATES, one of the greatest orators of Greece, was born at Athens, 436 B. C. He was the son of Theodorus, who had enriched himself by making musical instruments, and gave his son a liberal education. Isocrates was the disciple of Prodicus, Gorgias, and other great orators. He endeavoured at first to declaim in public, but without success; he therefore contented himself with instructing his scholars, and making private orations. He always showed great love for his country; and being informed of the loss of the battle of Cheronea, he abstained four days from eating, and died, aged 98. There are still extant 21 of his discourses or orations, which are excellent performances, and have been translated from the Greek into Latin by Wolfius. Isocrates particularly excelled in the justness of his thoughts, and the elegance of his expressions. There are also nine letters attributed to him.

ISOETES, a genus of plants belonging to the cryptogamia class. See BOTANY *Index*.

ISOLA, a town of Italy, in the kingdom of Naples, and in the Farther Calabria, with a bishop's see. It is a sea-port town, and is seated 15 miles south-east of St Severina. E. Long. 17. 33. N. Lat. 39. 2.

ISOPERIMETRICAL FIGURES, in *Geometry*, are such as have equal perimeters or circumferences.

ISOPYRUM, a genus of plants belonging to the polyandria class, and in the natural method ranking under the 26th order, *Multisiliquæ*. See BOTANY *Index*.

ISOSCELES TRIANGLE, in *Geometry*, one that has two equal sides.

ISPAHAN, or, as the Persians pronounce it, *Spauhawn*, the capital of Persia, is situated in the province of Irac Agemi, or Persia Proper, upon the ruins, as is generally supposed, of the ancient Hecatompylos, or, as others think, of the Aspa of Ptolemy. Most of the eastern astronomers and geographers place it in N. Lat. 32. 25. E. Long. 86. 40. It stands in a very extensive plain, surrounded by mountains; and has eight districts belonging to it, that contain about 400 towns and villages. The fertility of the soil, the mildness of the seasons, and the fine temperature of the air, all conspire to render Ispahan one of the most charming and delightful cities in the world. It is unanimously agreed, that the present city is of no great antiquity; and the two parts into which it is divided, preserve the names of two contiguous towns, from the junction of which it was formed. The inhabitants of these, notwithstanding their neighbourhood, bear an inveterate antipathy to each other; which they discover on all public occasions. Spauhawn owes the glory it now possesses to the great Shah Abas; who, after the conquest of the kingdoms of Lar and Ormus, charmed with the situation of this place, made it the capital of his empire, between the years 1620 and 1628. The mountains, with which this city is surrounded, defend it alike from the sultry heats of summer and the piercing winds of the winter season: and the plain on which it stands is watered by several rivers, which contribute alike to its ornament and use. Of these rivers, the Zenderoud, after being joined by the Mahmood, passes by Spauhawn; where it has three fine bridges over it, and is as broad as the Seine at Paris. The waters of these united streams are sweet, pleasant, and wholesome, almost beyond comparison; as indeed are all the springs found in the gardens belonging to the houses of Spauhawn. The extent of Spauhawn is very great; not less perhaps than 20 miles within the walls, which are of earth, poorly built, and covered with houses and gardens. The Persians are wont to say, *Spauhawn mispigehon*, i. e. Spauhawn is half the world. Chardin says, that some reckoned the number of inhabitants at 1,000,000; but he did not look upon it as more populous than London, or containing more than 600,000. Mr Kinneir, a late traveller, thinks they do not exceed 200,000. At a distance, the city is not easily distinguished; many of the streets being adorned with plantains, and every house having its garden, the whole looks like a wood. The streets in general are neither broad nor convenient; there being three great evils which attend them: the first is, that being built on common sewers, these are frequently broke up, which is very dangerous, considering that most people are on horseback; the second is, that there are many wells or pits in them, which are not less dangerous; the third arises from the people's emptying all their ordure from the tops of their houses: this last, indeed, is in some measure qualified by the dryness of the air, and by its being quickly removed by the peasants, who carry it away to dung their grounds. Some reckon eight, and others ten gates, besides posterns; but all agree that there is no difficulty of entering at any hour of the day or night. The three principal suburbs annexed to it are, Abas-Abad, built by Shah Abas, and belonging to the people of Tauris; Julfa, inhabited by a colony of Armenians, called by some *New Julfa*, to distinguish it from the ancient city of that name, situated in Armenia, upon the Araxes, whence the original inhabitants of New Julfa were brought; and Ghebr-Abad, or, as the Arabs pronounce it, Kebr-Abad, the street of the magians, occupied entirely by the professors of magism, or the religion of the ancient Persians. The river Zenderoud separates the city of Ispahan and Abas-Abad from Julfa and Ghebr-Abad. This city has suffered greatly since the commencement of the dreadful rebellion in 1721; the whole kingdom from that period, till a few years ago, having been almost a continued scene of blood, ravages, and confusion. A celebrated modern traveller, who was on the spot, tells us, that the inhabitants of Julfa, not many years before the above revolution happened, amounted to 30,000 souls; had 13 churches, and above 100 priests; and paid the Persian court 200 tomans* yearly for the free exercise of their religion; that some of the streets were broad and handsome, and planted with trees, with canals and fountains in the middle; others narrow and crooked, and arched a-top; others again, though extremely narrow, as well as turning and winding many ways, were of an incredible length, and resembled so many labyrinths: that, at a small distance from the town, there were public walks adorned with plane-trees on either hand, and ways paved with stones, fountains, and cisterns: that there were above 100 caravanseras for the use of merchants and travellers, many of which were built by the kings and prime nobility of Persia: that, as little rain fell there, the streets were frequently full of dust, which rendered the city disagreeable during a considerable

Ispahan.

* The toman is reckoned at 3l. 7s. sterling.

Ispahan ‖ Israelites.

considerable part of the summer; that the citizens, however, to make this inconvenience more tolerable, used to water them when the weather was warmer than usual: that there was a castle in the eastern part of the town, which the citizens looked upon as impregnable, in which the public money, and most of the military stores, were said to be kept: that, notwithstanding the baths and caravanseras were almost innumerable, there was not one public hospital: that most of the public buildings were rather neat than magnificent, though the great meydan or market-place, the royal palace (which is three quarters of a league in circumference), and the alley denominated *Toher bag* adjoining to it, made a very grand appearance: that the former contained the royal mosque; the building denominated *kayserich*, where all sorts of foreign commodities were exposed to sale; and the mint, styled by the Persians *serraa-khoneh*, where the current money of the kingdom was coined: that, besides the native Persians, there were then in Ispahan above 10,000 Indians all supported by trade; 20,000 Georgians, Circassians, and Tartars of Daghestan or Lesgees, with a considerable number of English, Dutch, Portuguese, and a few French: that the Capuchins, discalceated or barefooted Carmelites, Jesuits, Dominicans, and Austin friars, had likewise their convents here, though they were unable to make any converts; and that there were above 100 mosques and public colleges. But since the fatal period above mentioned, the suburb of Julfa was almost totally abandoned by the Armenians. The government of Ispahan, twenty-three leagues long and as many broad, comprehending several districts, most of them formerly well peopled, appeared not many years ago little better than a desert; for most of the inhabitants of that fertile and delightful tract had been driven out and dispersed. Multitudes of them took a precarious refuge in the mountains of Loristan, lying between Ispahan and Suster, while their lands were left untilled, and their houses mouldered into ruins. In short, all the distresses of an unsuccessful war, or the invasion of a barbarous enemy, could not have plunged the people of Ispahan into greater misery than the victories of their tyrannical king Nadir Shah, who seemed more solicitous to humble his own subjects than to crush his enemies. See PERSIA.

ISPIDA. See ALCEDO, ORNITHOLOGY *Index*.

ISRAEL, the name which the angel gave Jacob, after having wrestled with him all night at Mahanaim or Penuel (Gen. xxxii. 1, 2, and 28, 29, 30, and Hosea xii. 3.). It signifies *a conqueror of God* or *a prince of God*, or, according to many of the ancients, *a man who sees God*.

By the name of Israel is sometimes understood the person of Jacob; sometimes the whole people of Israel, or the whole race of Jacob; and sometimes the kingdom of Israel, or of the ten tribes, distinct from the kingdom of Judah.

ISRAELITES, the descendants of Israel; who were at first called *Hebrews*, by reason of Abraham, who came from the other side of the Euphrates; and afterwards *Israelites*, from Israel the father of the twelve patriarchs; and lastly *Jews*, particularly after their return from the captivity of Babylon, because the tribe of Judah was then much stronger and more numerous than the other tribes, and foreigners had scarcely any knowledge of this tribe.

Issachar ‖ Issus.

ISSACHAR, one of the divisions of Palestine by tribes; lying to the south of Zabulon, so as by a narrow slip to reach the Jordan, between Zabulon and Manasseh, (Josh. xix.). But whether it reached to the sea, is a question: some holding that it did; an assertion not easy to be proved, as Joshua makes no mention of the sea in this tribe, nor does Josephus extend it farther than to Mount Carmel; and in Josh. xvii. 10. Asher is said to touch Manasseh on the north, which could not be if Issachar extended to the sea.

ISSOUDUN, a town of France, in Berry, which carries on a trade in wood, cattle, cloth, hats, and stockings; it is seated partly in a plain, and partly on an eminence. E. Long. 2. 5. N. Lat. 46. 57.

ISSUE, in common law, has various applications; being sometimes taken for the children begotten between a man and his wife—sometimes for profits growing from amercements or fines—sometimes for profits of lands and tenements—but more frequently for the point of matter depending in suit, whereupon the parties join, and put their cause to the trial of the jury.

In all these occasions, issue has but one signification, which is, an effect of a cause preceding; as the children are the effect of the marriage between the parents; the profits growing to the king or lord, from the punishment of any man's offence, are the effect of his transgression; the point referred to the trial of twelve men is the effect of pleading, or process. See PLEA *and Issue*.

ISSUES, in *Surgery*, are little ulcers made designedly by the surgeon in various parts of the body, and kept open by the patient, for the preservation and recovery of his health.

ISSUS, now AJAZO, a town of Cilicia in Natolia, with a harbour on the Levant sea, a little to the north of Scanderoon. E. Long. 36. 25. N. Lat. 36. 56.

Near this place, in a difficult pass between the mountains and the sea, Alexander the Great fought his second battle with Darius. One great cause of the defeat which the Persians received here was the bad conduct of their monarch, who led his numerous forces into a narrow place, where they had not room to act. Alexander was so much surprised when he first received the news that Darius was behind him, that he could scarcely believe it to be true: but when he was thoroughly satisfied of the fact, and that Darius had again passed the river Pinarus, he called a council of war, wherein, without asking any body's advice, he only told them, that he hoped they would remember their former actions: and that they, who were always conquerors, were about to fight people who were always beaten. He further observed, that Darius seemed to be infatuated, since he had with such expedition quitted an open and champaign country, where his numbers might have acted with advantage, to fight in a place inclosed, where the Macedonian phalanx might be well drawn up, and where his numbers could only incommode him. He then made the necessary dispositions for repassing the mountains, posted guards where he found them necessary, and then commanded his troops to refresh themselves, and to take their rest till morning.

At break of day he began to repass the mountains, obliging his forces to move in close order where the road was narrow, and to extend themselves as they

Issus. had more room; the right wing keeping always close to the mountain, and the left to the sea-shore. On the right there was a battalion of heavy-armed troops, besides the targeteers under the command of Nicanor the son of Parmenio. Next these, extending to the phalanx, were the corps of Cœnus and Perdiccas; and on the left the respective bodies commanded by Amyntas, Ptolemy, and Meleager. The foot appointed to support them were commanded by Craterus; but the whole left wing was committed to Parmenio, with strict orders not to decline from the sea shore, lest the Persians should surround them. Darius ordered 20,000 foot and 30,000 horse to retire, finding that he already wanted room to draw up the rest. His first line consisted of 30,000 Greek mercenaries, having on their right and left 60,000 heavy-armed troops, being the utmost the ground would allow. On the left, towards the mountain, he posted 20,000 men, which, from the hollow situation of the place, were brought quite behind Alexander's right wing. The rest of his troops were formed into close and useless lines behind the Greek mercenaries, to the number in all of 600,000 men. When this was done, he suddenly recalled the horse who had retired, sending part of them to take post on his right against the Macedonians commanded by Parmenio; and the rest he ordered to the left towards the mountain: but, finding them unserviceable there, he sent the greatest part of them to the right; and then took upon himself, according to the custom of the Persian kings, the command of the main body. As soon as Alexander perceived that the weight of the Persian horse was disposed against his left wing, he dispatched with as much secrecy as he could, the Thessalian cavalry thither, and supplied their places on the right by some brigades of horse from the van, and light-armed troops. He also made such dispositions, that, notwithstanding the mighty advantage of the hollow mountain, the Persians could not surround him. But, as these precautions had considerably weakened the centre of his army, he ordered those advanced posts on the enemy's left, of which he was most apprehensive to be attacked at the very beginning of the fight; and, when they were easily driven from them, he recalled as many troops as were necessary to strengthen his centre.

When all things were in order, Alexander gave strict command, that his army should march very slowly. As for Darius, he kept his troops fixed in their posts, and in some places threw up ramparts; whence the Macedonians rightly observed, that he thought himself already a prisoner. Alexander at the head of the right wing engaged first, and without any difficulty broke and defeated the left wing of Darius. But, endeavouring to pass the river Pinarus after them, his troops in some measure losing their order, the Greek mercenaries fell upon them in flank, and made them fight, not only for victory, but for their lives. Ptolemy the son of Seleucus, and 120 Macedonians of some rank, were killed upon the spot. But the foot next to Alexander's right wing coming in seasonably to its relief, fell upon the mercenaries in flank, amongst whom a dreadful carnage was made; they being in a manner surrounded by the horse and light-armed troops, which at first pursued the left wing, and the foot that now passed the river. The Persian horse on the right still fought gallantly; but, when they were thoroughly informed of the rout of their left wing and of the destruction of the Greek mercenaries, and that Darius himself was fled, they began to break, and betake themselves to flight also. The Thessalian cavalry pursued them close at the heels; and the narrow craggy roads incommoded them exceedingly, so that vast numbers of them perished. As for Darius, he fled, soon after the left wing was broken, in a chariot with a few of his favourites: as far as the country was plain and open, he escaped well enough; but, when the roads became rocky and narrow, he quitted it, and mounting a horse, rode all the night; his chariot, in which were his cloak and his bow, fell into the hands of Alexander, who carried them back to his camp. Issus, Isthmia.

In respect to the battle of Issus, Diodorus informs us, that Alexander looked everywhere about for Darius; and, as soon as he discovered him, with his handful of guards attacked him and the flower of the Persian army which was about him; being as desirous of obtaining this victory by his personal valour, as of subduing the Persian empire by the courage of his soldiers. But when Oxathres, the brother of Darius, saw Alexander's design, and how fiercely he sought to accomplish it, he threw himself, with the horse who were about him, between his brother's chariot and the enemy, where an obstinate fight was maintained, till the dead bodies rose like an entrenchment about the chariot of Darius. Many of the Persian nobility were slain, and Alexander himself was wounded in the thigh. At last the horses in the chariot of Darius started, and became so unruly, that the king himself was forced to take the reins; the enemy, however, pressed so hard upon him, that he was constrained to call for another chariot, and mounted it in great danger. This was the beginning of the rout, which soon after became general. According to this author, the Persians lost 200,000 foot, and 10,000 horse; the Macedonians 300 foot, and 150 horse.

Justin informs us, that the Persian army consisted of 400,000 foot, and 100,000 horse. He says, that the battle was hard fought; that both the kings were wounded; and that the Persians still fought gallantly when their king fled, but that they were afterwards speedily and totally routed: he is very particular as to their loss, which he says amounted to 61,000 foot, 10,000 horse, and 40,000 taken prisoners; of the Macedonians he says there fell no more than 130 foot, and 150 horse. Curtius says, that of the Persians there fell 100,000 foot, and 10,000 horse: of Alexander's army 504, he says, were wounded; 32 foot and 150 horse killed. That we may not suspect any error in transcribers, his own observation confirms the fact: *Tantulo impendio ingens victoria stetit*, "So small was the cost of so great a victory."

ISTHMIA, or *Isthmian Games;* one of the four solemn games which were celebrated every fifth year in Greece. They derived their name from the isthmus of Corinth, where they were celebrated. In their first institution, according to Pausanias, they consisted only of funeral rites and ceremonies in honour of Melicertes: but Theseus afterwards, as Plutarch informs us, in emulation of Hercules, who had appointed games at Olympia in honour of Jupiter, dedicated those to Neptune, his reputed father, who was regarded as the particular protector of the isthmus and commerce of Corinth. The same trials of skill were exhibited here as at the other three

Isthmia || Italian.

three sacred games; and particularly those of music and poetry. These games, in which the victors were only rewarded with garlands of pine leaves, were celebrated with great magnificence and splendour as long as paganism continued to be the established religion of Greece; nor were they omitted even when Corinth was sacked and burnt by Mummius the Roman general; at which time the care of them was transferred to the Sicyonians, but was restored again to the Corinthians when their city was rebuilt.

ISTHMUS, a narrow neck, or slip of ground, which joins two continents; or joins a peninsula to the terra firma, and separates two seas. See PENINSULA.

The most celebrated isthmuses are that of Panama or Darien, which joins North and South America; that of Suez, which connects Asia and Africa; that of Corinth, or Peloponnesus, in the Morea; that of Crim-Tartary, otherwise called *Taurica Chersonesus;* that of the peninsula Romania, and Erisso, or the isthmus of the Thracian Chersonesus, twelve furlongs broad, being that which Xerxes undertook to cut through. The ancients had several designs of cutting the isthmus of Corinth, which is a rocky hillock, about ten miles over; but they were all in vain, the invention of sluices being not then known. There have been attempts too for cutting the isthmus of Suez, to make a communication between the Red sea and the Mediterranean: but these also failed; and in one of them a king of Egypt is said to have lost 120,000 men.

ISTRIA, a peninsula of Italy, in the territory of Venice, lying in the north part of the Adriatic sea. It is bounded by Carniola on the north; and on the south, east, and west, by the sea. The air is unwholesome, especially near the coast; but the soil produces plenty of wine, oil, and pastures; there are also quarries of fine marble. One part of it belongs to the Venetians, and the other to the house of Austria. Cabo d'Istria is the capital town.

ITALIAN, the language spoken in Italy. See the article LANGUAGE.

This tongue is derived principally from the Latin; and of all the languages formed from the Latin, there is none which carries with it more visible marks of its original than the Italian.

Italian || Italica.

It is accounted one of the most perfect among the modern tongues. It is complained, indeed, that it has too many diminutives and superlatives, or rather augmentatives; but without any great reason: for if those words convey nothing farther to the mind than the just ideas of things, they are no more faulty than our pleonasms and hyperboles.

The language corresponds to the genius of the people, who are slow and thoughtful: Accordingly their language runs heavily, though smoothly; and many of their words are lengthened out to a great degree. They have a great taste for music; and to gratify their passion this way, have altered abundance of their primitive words; leaving out consonants, taking in vowels, softening and lengthening out their terminations, for the sake of the cadence.

Hence the language is rendered extremely musical, and succeeds better than any other in operas and some parts of poetry: but it fails in strength and nervousness; and a great part of its words, borrowed from the Latin, become so far disguised that they are not easily known again.

The multitude of sovereign states into which Italy has been divided has given rise to a great number of different dialects in that language; which, however, are all good in the place where they are used. The Tuscan is usually preferred to the other dialects, and the Roman pronunciation to that of the other cities; whence the Italian proverb, *Lingua Toscana in bocca Romana.*

ITALIC CHARACTER, in *Printing*. See LETTER.

ITALICA, in *Ancient Geography*, a town of Bætica in Spain, built by Scipio Africanus, after finishing the Spanish war, for the reception of the wounded soldiers. At first it was a municipium; afterwards a colony: which was a matter of wonder to the emperor Adrian, the privileges of a municipium being beyond those of a colony (Gellius). Famous for being the birthplace of the emperors Trajan and Adrian, and of the poet Silius Italicus. Now *Sevilla Vieja*, scarcely four miles from Seville; a small village of Andalusia, on the Guadalquivir.—*Corfinium* in Italy was thus also called.

ITALY.

Italy.

ITALY, one of the finest countries of Europe, lying between 7 and 10 degrees of E. Long. and between 37 and 46 degrees of N. Lat. On the north, north-west, and north-east, it is bounded by France, Switzerland, the country of the Grisons, and Germany; on the east, by the Adriatic sea or gulf of Venice; and on the south and west, by the Mediterranean; its figure bearing some resemblance to that of a boot. Its length from Aosta, at the foot of the Alps in Savoy, to the utmost verge of Calabria, is about 600 miles; but its breadth is very unequal, being in some places near 400 miles, in others not above 25 or 30.

1 Its different names.

Italy was anciently known by the names of *Saturnia*, *Oenotria*, *Hesperia*, and *Ausonia*. It was called *Saturnia* from Saturn; who, being driven out of Crete by his son Jupiter, is supposed to have taken refuge here.

Italy.

The names of *Oenotria* and *Ausonia* are borrowed from its ancient inhabitants the Oenotrians and Ausones; and that of *Hesperia* or *Western* was given it by the Greeks, from its situation with respect to Greece. The name of *Italia*, or *Italy*, which in process of time prevailed over all the rest, is by some derived from *Italus*, a king of the Siculi: by others, from the Greek word *Italos*, signifying an ox; this country abounding, by reason of its rich pastures, with oxen of an extraordinary size and beauty. All these names were originally peculiar to particular provinces of Italy, but afterwards applied to the whole country.

2 Division in ancient times.

This country, like most others, was in ancient times divided into a great number of petty states and kingdoms. Afterwards when the Gauls settled in the western, and many Greek colonies in the eastern parts,

it

Italy. it was divided, with respect to its inhabitants, into three great parts, viz. Gallia Cisalpina, *Italy* properly so called, and Magna Græcia. The most western and northern parts of Italy were in great part possessed by the Gauls; and hence took the name of *Gallia*, with the epithets of *Cisalpina* and *Citerior*, because they lay on the side of the Alps next to Rome; and *Togata*, with relation to the Roman gown or dress which the inhabitants used; but this last epithet is of a much later date than the former. This appellation was antiquated in the reign of Augustus, when the division of Italy into eleven provinces, introduced by that prince, took place. Hence it is that the name of *Cisalpine Gaul* frequently occurs in the authors who flourished before, and scarce ever in those who wrote after, the reign of Augustus. This country extended from the Alps and the river Varus, parting it from Transalpine Gaul, to the river Aesus; or, as Pliny will have it, to the city of Ancona, in the ancient Picenum. On the north, it was divided from Rhætia by the Alps, called *Alpes Rhæticæ;* and from Illyricum by the river Formio: but on this side, the borders of Italy were, in Pliny's time, extended to the river Arsia in Istria. On the south, it reached to the Ligustic sea, and the Apennines parting it from Etruria; so that under the common name of *Cisalpine Gaul* were comprehended the countries lying at the foot of the Alps, called by Pliny and Strabo the *Subalpine countries*, Liguria, Gallia Cispadana and Transpadana. *Italy*, properly so called, extended, on the coast of the Adriatic, from the city of Ancona to the river Trento, now the Fortore; and on the Mediterranean, from the Macra to the Silarus, now the Sele. Magna Græcia comprised Apulia, Lucania, and the country of the Bruttii. It was called *Greece*, because most of the cities on the coast were Greek colonies. The inhabitants gave it the name of *Great*, not as if it was larger than Greece, but merely out of ostentation, as Pliny informs us.

All these countries were inhabited by a great number of different nations, settled at different times, and from many different parts. The names of the most remarkable of them were the *Aborigines*, or those whose origin was utterly unknown, and consequently were thought to have none; the *Sabines*, *Hetrurians* or *Tuscans*, the *Umbri*, *Samnites*, *Campani*, *Apulii*, *Calabrii*, *Lucanii*, the *Bruttii*, and the *Latins*. From a colony of the latter proceeded the Romans, who gradually subdued all these nations one after another, and held them in subjection for upwards of 700 years. All these nations were originally brave, hardy, temperate, and well skilled in the art of war; and the Romans much more so than the rest. Their subjection to Rome, however, inured them to slavery; their oppression by the emperors broke their spirit; and the vast wealth which was poured into the country from all parts of the world, during the time of the Roman prosperity, corrupted their manners, and made them degenerate from their former valour. Of this degeneracy the barbarous nations of the north took the advantage to invade the empire in innumerable multitudes. Though often repelled, they never failed to return; and it was found necessary to take great numbers of them into the Roman service, in order to defend the empire against the rest of their countrymen.

3 Subdued by the Romans.

In the year 476, the Heruli, presuming on the services they had done the empire, demanded a third part of the lands of Italy; and being refused, chose one Odoacer, a man of low birth, but of great valour and experience, for their king; and having totally destroyed the remains of the Roman empire, proclaimed Odoacer king of Italy. The new monarch, however, did not think proper to alter the Roman form of government, but suffered the people to be governed by the senate, consuls, &c. as before. He enjoyed his dignity in peace till the year 488, when Zeno, emperor of Constantinople, being hard pressed by Theodoric king of the Ostrogoths, advised him to turn his arms against Odoacer, whom he could easily overcome, and thus make himself sovereign of one of the finest countries in the world.

Italy.

4 By the Heruli.

Theodoric accepted the proposal with great joy, and set out for Italy, attended by an infinite number of people, carrying with them their wives, children, and effects, on waggons. Several Romans of great distinction attended him in this war; while, on the other hand, many of his countrymen chose to remain in Thrace, where they became a separate nation, and lived for a long time in amity with the Romans. The Goths, being destitute of shipping, were obliged to go round the Adriatic. Their march was performed in the depth of winter; and during the whole time, a violent famine and plague raged in their army. They were also opposed by the Gepidæ and Sarmatians; but at last having defeated those enemies, and overcome every other obstacle, they arrived in Italy in the year 409. Theodoric advanced to the river Sontius, now Zonzo, near Aquileia, where he halted for some time to refresh his troops. Here he was met by Odoacer at the head of a very numerous army, but composed of many different nations commanded by their respective chiefs, and consequently without sufficient union or zeal for the common cause. Theodoric therefore gained an easy victory, cut many of his enemies in pieces, and took their camp. Odoacer retired to the plains of Verona, and encamped there at a small distance from the city; but Theodoric pursued him close, and soon forced him to a second engagement. The Goths obtained another victory; but it cost them dear. Odoacer's men made a much better resistance than before, and great numbers fell on both sides. The victory, however, was so far decisive, that Odoacer was obliged to shut himself up in Ravenna; so that Theodoric having now no enemy to oppose him in the field, besieged and took several important places, and among the rest Milan and Pavia. At the same time, Tufa, commander in chief of Odoacer's forces, deserted to the enemy with the greatest part of the troops he had with him, and was immediately employed in conjunction with a Gothic officer in pursuit of his sovereign. Odoacer had left that city, and was advanced as far as Faenza, where he was closely besieged by Tufa; but the traitor, declaring again for his old master, joined him with all his troops, and delivered up several officers that had been appointed by Theodoric to serve under him. These were sent in irons to Ravenna; and Odoacer being joined by Frideric, one of Theodoric's allies, with a considerable body of troops, once more advanced against his enemies. He recovered all Liguria, took the city of Milan,

5 Invaded by Theodoric the Ostrogoth.

6 Odoacer defeated.

Milan, and at last besieged Theodoric himself in Pavia. The Goths, having brought all their families and effects along with them, were greatly distressed for want of room; and must have undoubtedly submitted, if their enemies had continued to agree among themselves. The quarrels of his followers proved the ruin of Odoacer. Theodoric finding that the enemy remitted the vigour of their operations, applied for succours to Alaric king of the Visigoths, who had settled in Gaul. As the Visigoths and Ostrogoths were originally one and the same nation, and the Visigoths had received among them some years before a great number of Ostrogoths under the conduct of Videmer cousin-german to Theodoric, the supplies were readily granted. The inaction of the enemy gave these succours time to arrive; upon which Theodoric instantly joined them, and marching against his enemies gave them a total overthrow. Odoacer again took refuge in Ravenna, but was closely besieged by Theodoric in 490. The siege lasted three years; during which Odoacer defended himself with great bravery, and greatly annoyed the besiegers with his sallies. Theodoric, however, impatient of delay, leaving part of his army to blockade the city, marched with the rest against the strong holds which Odoacer had garrisoned. All these he reduced with little difficulty; and in 492 returned to the siege of Ravenna. The besieged were now reduced to great straits both by the enemy without and a famine within, the price of wheat being risen to six pieces of gold per bushel. On the other hand, the Goths were quite worn out with the fatigues of such a long siege; so that both parties being willing to put an end to the war, Odoacer sent John bishop of Ravenna to Theodoric with terms of accommodation. Jornandes informs us, that Odoacer only begged his life; which Theodoric bound himself, by a solemn oath, to grant him: but Procopius says, that they agreed to live together on equal terms. This last seems very improbable: but whatever were the terms of the agreement, it is certain that Theodoric did not keep them; for having a few days after invited Odoacer to a banquet, he dispatched him with his own hand. All his servants and relations were massacred at the same time; except his brother Arnulphus, and a few more, who had the good luck to make their escape, and retired beyond the Danube.

7 Submits, and is put to death.

8 Theodoric proclaimed king of Italy, and uses his power with moderation.

Thus Theodoric became master of all Italy, and took upon himself the title of *king* of that country, as Odoacer had done before; though, with a pretended deference to the emperor of Constantinople, he sent messengers asking liberty to assume that title after he had actually taken it. Having secured his new kingdom as well as he could by foreign alliances, Theodoric next applied himself to legislation, and enacted many salutary laws besides those of the Romans which he retained. He chose Ravenna for the place of his residence, in order to be near at hand to put a stop to the incursions of the barbarians. The provinces were governed by the same magistrates that had presided over them in the times of the emperors, viz. the *consulares*, *correctors*, and *præsides*. But besides these, he sent, according to the custom of the Goths, inferior judges, distinguished by the name of *counts*, to each city. These were to administer justice, and to decide all controversies and disputes. And herein the polity of the Goths far excelled that of the Romans. For in the Roman times a whole province was governed by a consularis, a corrector, or a præses, who resided in the chief city, and to whom recourse was to be had at a great charge from the most remote parts: but Theodoric, besides these officers, appointed not only in the principal cities, but in every small town and village, inferior magistrates of known integrity, who were to administer justice, and by that means save those who had law-suits the trouble and expence of recurring to the governor of the whole province; no appeals to distant tribunals being allowed, but in matters of the greatest importance, or in cases of manifest injustice.

Under the administration of Theodoric Italy enjoyed as great happiness as had been experienced under the very best emperors. As he had made no alteration in the laws except that above mentioned; so he contented himself with the same tributes and taxes that had been levied by the emperors; but was, on all occasions of public calamity, much more ready to remit them than most of the emperors had been. He did not treat the natives as those of the other Roman provinces were treated by the barbarians who conquered them. These stripped the ancient proprietors of their lands, estates, and possessions, dividing them among their chiefs; and giving to one a province with the title of *duke*, to another a frontier country with the title of *marquis*; to some a city with the title of *count*, to others a castle or village with the title of *baron*. But Theodoric, who piqued himself upon governing after the Roman manner, and observing the Roman laws and institutions, left every one in the full enjoyment of his ancient property. As to religion, though he himself, like most of his countrymen, professed the tenets of Arius, he allowed his subjects to profess the orthodox doctrine without molestation, giving liberty even to the Goths to renounce the doctrines in which they had been educated, and embrace the contrary opinions. In short, his many virtues, and the happiness of his subjects, are celebrated by all the historians of those times. The end of his reign, however, was sullied by the death of the celebrated philosopher Boethius, and his father-in-law Symmachus. They were both beheaded in Pavia, on an unjust suspicion of treason; and scarce was the sentence put in execution when the king repented, and abandoned himself to the most pungent sorrow. The excess of his grief affected his understanding: for not long after, the head of a large fish being served up to supper, he fancied the head of the fish to be that of Symmachus threatening him in a ghastly manner. Hereupon, seized with horror and amazement, he was carried to his bed-chamber, where he died in a few days, on the 2d of September 526.

9 Beheads Boethius and Symmachus, and dies of grief.

After the death of Theodoric, the kingdom devolved to Athalric his grandson; who being at that time only eight years of age, his mother Amalasuntha took upon her the regency. Her administration was equally upright with that of Theodoric himself; but the barbarians of whom her court was composed, finding fault with the encouragement she gave to learning, forced her to abandon the education of her son. The latter thereupon plunged into all manner of wickedness, and behaved to his mother with the greatest arrogance; and, the faction finding themselves thus strengthened, at last commanded the queen to retire from court.

10 Amalasuntha the regent governs equitably.

Amalasuntha,

Italy.

Amalasuntha, exerting her authority, seized three of the ringleaders of the sedition, whom she confined in the most remote parts of Italy. But these maintaining a secret correspondence with their friends and relations, never ceased to stir up the people against her; insomuch, that the queen, apprehending that the faction might in the end prevail, wrote to the emperor Justinian, begging leave to take refuge in his dominions. The emperor readily complied with her request, offering a noble palace at Durazzo for her habitation; but the queen having in the mean time caused the three ringleaders to be put to death, and no new disturbances arising thereupon, she did not accept of the emperor's offer. In 533, Athalric having contracted a lingering distemper by his riotous living and debaucheries, Amalasuntha, to avoid the calamities with which Italy was threatened in case of his death, formed a design of delivering it up to Justinian: but before her scheme was ripe for execution, Athalric died. Upon which the queen took for her colleague one Theodotus her cousin; obliging him, however, to swear that he would suffer her to enjoy and exercise her former power. This he very readily did, but soon forgot his promise; and when she took the liberty to remind him of it, caused her to be seized and confined to an island of the lake Bolsena in Tuscany. But as Theodotus had great reason to believe that this conduct would be resented by Justinian, he obliged her to write to him that no injury or injustice had been done her. Along with this letter he sent one written by himself, and filled with heavy complaints against Amalasuntha. The emperor, however, was so far from giving credit to what Theodotus urged against her, that he openly espoused her cause, wrote her a most affectionate letter, and assured her of his protection. But before this letter could reach her, the unhappy princess was strangled in the bath by the friends of those whom in the reign of her son she had deservedly put to death for raising disturbances in the state.

11 Is treacherously imprisoned, and put to death;

12 for which reason Justinian makes war in the Goths.

On the news of Amalasuntha's death, Justinian resolved upon an immediate war with the Goths; and, to facilitate the enterprise, used his utmost endeavours to induce the Franks to assist him. To his solicitations he added a large sum of money; which last was very acceptable to his new allies. They promised to assist the emperor to the utmost of their power; but instead of performing their promise, while Justinian's arms were employed against the Goths, Thierri, the eldest son of Clovis, seized on several cities of Liguria, the Alpes Cottiæ, and great part of the present territory of Venice, for himself. Justinian, however, found sufficient resources in the valour of Belisarius, notwithstanding the defection of his treacherous allies. This celebrated general was vested with the supreme command, and absolute authority. His instructions were to pretend a voyage to Carthage, but to make an attempt upon Sicily; and if he thought he could succeed in the attempt, to land there; otherwise to sail for Africa, without discovering his intentions. Another general, named *Mundus*, commander of the troops in Illyricum, was ordered to march into Dalmatia, which was subject to the Goths, and attempt the reduction of Salonæ, the better to open a passage into Italy. This he accompanied without difficulty, and Belisarius made himself master of Sicily sooner than he himself had expected. The island was reduced on the last of December 535; upon which Belisarius, without loss of time, passed over to Reggio, which opened its gates to him. From Reggio he pursued his march to Rome, the provinces of Abrutium, Lucania, Puglia, Calabria, and Samnium, readily submitting to him. The city of Naples endured a siege: but Belisarius entered in through an aqueduct, and gave it up to be plundered by his soldiers.

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Theodotus alarmed at these successes, and having neither capacity nor inclination to carry on the war, sent ambassadors to Justinian with proposals of peace. He agreed to renounce all pretensions to the island of Sicily; to send the emperor yearly a crown of gold weighing 300 pounds; and to supply him with 3000 men whenever he should think proper to demand them. Several other articles were contained in the proposal, which amounted to the owning of Justinian for his lord, and that he held the crown of Italy only through his favour, As he apprehended, however, that these offers might not yet be satisfactory, he recalled his ambassadors for further orders. They were now desired to inform Justinian, that Theodotus was willing to resign the kingdom to him, and content himself with a pension suitable to his quality. But he obliged them by an oath not to mention this proposal, till they found that the emperor would not accept of the other. The first proposals were accordingly rejected as they had supposed; upon which the ambassadors produced the second, signed by Theodotus himself, who in his letter to the emperor told him, among other things, that being unacquainted with war, and addicted to the study of philosophy, he preferred his quiet to a kingdom. Justinian, transported with joy, and imagining the war already finished, answered the king in a most obliging manner, extolling his wisdom, and giving him besides what he demanded the greatest honours of the empire. The agreement being confirmed by mutual oaths, lands were assigned to Theodotus out of the king's domain, and orders were dispatched to Belisarius to take possession of Italy in his name.

13 Theodotus offers to resign the kingdom.

In the mean time, a body of Goths having entered Dalmatia, with a design to recover the city of Salonæ, were encountered by an inferior army of Romans, commanded by the son of Mundus above mentioned. The Goths proved victorious; and the young general of the Romans was killed, and most of his army cut in pieces. Mundus marched against the enemy to revenge the death of his son; but met with no better success, his troops being defeated, and he himself killed in the engagement. Upon this the Romans abandoned Salonæ and all Dalmatia; and Theodotus, elated with his success, refused to fulfil the articles of the treaty. Justinian dispatched Constantianus, an officer of great valour and experience, into Illyricum, with orders to raise forces there, and to enter Dalmatia; at the same time he wrote to Belisarius to pursue the war with the utmost vigour.

14 Theodotus refuses to fulfil the articles of the treaty

The Goths were now reduced to the greatest straits. Constantianus drove them out of Dalmatia; and Belisarius having reduced all the provinces which compose the present kingdom of Naples, advanced towards Rome. The chief men of the nation, finding their king incapable of preventing the impending ruin, assembled

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sembled without his consent, and dispatched ambassadors to Belisarius with proposals of peace. These proposals were rejected; and Belisarius returned for answer, that he would hearken to no terms, nor sheath his sword, till Italy was reannexed to the empire to which it belonged. The Goths finding Theodotus still inactive, unanimously deposed him; and chose in his stead one Vitiges, a man of great valour, but of a mean descent. Theodotus fled to Ravenna; but the new king despatched after him a messenger, who soon overtook him and cut off his head.

15 He is deposed, and Vitiges chosen in his stead.

Vitiges began his government by writing a circular letter, in which he exhorted his countrymen to exert their ancient courage, and fight bravely for their lives and liberties. He then marched with what forces he could collect towards Rome; but not thinking himself able to defend that city against the Roman forces, he abandoned it to Belisarius, and arriving at Ravenna was joined by the Goths from all parts, so that he soon found himself at the head of a considerable army. Belisarius in the mean time entered Rome without opposition, on the 9th or 10th of December 537. The Gothic garrison retired by the Porta Flaminia, while Belisarius entered by the Porta Asinaria. Leudaris, governor of the city, who staid behind, was sent, together with the keys, to the emperor. Belisarius immediately applied himself to the repairing of the walls and other fortifications; filled the granaries with corn, which he caused to be brought from Sicily; and stored the place with provisions, as if he had been preparing for a siege; which gave no small uneasiness to the inhabitants, who chose rather that their city should lie open to every invader, than that they should be liable to the calamities of a siege. While Belisarius was thus employed at Rome, the city of Benevento, with great part of the territory of Samnium, was delivered up to him: at the same time the cities of Narnia, Spoleto, and Perusia, revolting from the Goths, received Roman garrisons; as did most of the cities of Tuscany.

16 He collects a great army.

In the mean time, Vitiges having collected an army of 150,000 men, resolved to march directly to Rome, and engage Belisarius; or, if he declined an engagement, to lay siege to the city. But apprehending that the Franks, who were in confederacy with the emperor, might fall upon him at the same time, he sent ambassadors to them, with offers of all the Gothic possessions in Gaul, besides a considerable sum of money, provided they joined him against the emperor. The Franks with their usual treachery consented to the proposal, received the money and the territories agreed on, and then refused to fulfil the terms of the treaty. Vitiges, however, began his march to Rome, leaving behind him all the fortified towns on the road, the reduction of which he knew would cost him too much trouble. Belisarius, whose army, reduced by the many towns he had garrisoned, did not now amount to above 5000 men, dispatched messengers to Constantianus in Tuscany; and to Bessas, by nation a Goth, but of the emperor's party, in Umbria, with orders to join him with all possible expedition; writing at the same time to the emperor himself for supplies in the most pressing manner. Constantianus joined him pursuant to his orders; and soon after, Bessas, falling in with part of the enemy's vanguard, killed a considerable number of them, and put the rest to flight. Belisarius had built a fort upon a bridge about a mile from Rome, and placed a strong garrison in it to dispute the passage with the enemy; but the garrison, seized with a panic at the approach of the Goths, abandoned their post in the night, and fled into Campania. Early in the morning Vitiges passed over great part of his army, and marched on till he was met by Belisarius, who, knowing nothing of what had happened, came with 1000 horse to view the ground about the bridge. He was greatly surprised when he beheld the enemy marching up against him; however, lest he should heighten their courage by his flight or retreat, he stood his ground, and received the enemy at the head of his small body, exposing himself, without his usual prudence and discretion, to the greatest dangers. Being known by some fugitives, and discovered to the enemy, they all aimed at him alone, which made his own men the more solicitous to defend him; so that the whole contest was for some time about his person. At last the Goths were driven back to their camp, which the Romans with great temerity attempted to force. In this attempt, however, they met with such a vigorous resistance, that they soon abandoned the enterprise, and retired with precipitation to a neighbouring eminence; whence they were forced down by the enemy, put to flight, and pursued to the very gates of the city. Here they were in greater danger than ever; for those within, fearing that the enemy might in that confusion enter with them, refused to admit them. The general himself cried out earnestly to them, telling who he was, and commanding them to open the gates; but as they had been informed by those who first fled, that he was slain, and they could not distinguish him on account of the blood and dust with which his face was covered, they gave no ear to what he said. In this extremity, having encouraged his men, who were now driven into a narrow compass, to make a last effort, he put himself at their head, and attacked the enemy with such fury, that the Goths imagining fresh troops were sallying out upon them, began to give ground, and at last retired to their camp. The Roman general did not pursue them; but entered the city, where he was received with loud acclamations.

17 Obstinate engagement between the Goths and Romans.

A few days after, the city was closely invested by Vitiges; who, to distress the inhabitants, pulled down the aqueducts by which water was conveyed into the city, and which had been built at an immense charge by the Roman emperors. Belisarius on his part omitted nothing for his defence; insomuch that the cowardly citizens assembled in a tumultuous manner, and railed at the general on account of his supposed temerity. Vitiges, to encourage this mutinous disposition, dispatched ambassadors to the senate with proposals of peace. These ambassadors, however, were dismissed without any answer, and the siege was begun with great vigour. Belisarius made a gallant defence, and in seven months is said to have destroyed 40,000 of the Goths. About this time he received a supply of 1600 archers from the emperor; and these, in several successful sallies, are said to have killed 4000 more of the enemy.

18 Rome besieged by the Goths.

The Romans, elated with their successes, now became impatient for an engagement; and at last, notwithstanding

Italy. withstanding all the remonstrances of their general, forced him to lead them out against the enemy. The success was answerable to the rash attempt. The Romans were defeated, with the loss of some of their bravest officers, and a great many of their common soldiers; after which they contented themselves with sallying out in small parties, which they commonly did with the greatest success.

But though the Romans had the satisfaction of thus cutting off their enemies, they were most grievously afflicted with a famine and plague; insomuch that the inhabitants, no longer able to bear their calamities, were on the point of forcing Belisarius to venture a second battle, when a seasonable supply of troops, viz. 3000 Isaurians, 800 Thracian horse, and 1300 horse of other nations, together with 500 Italians who joined them by the way, arrived at Rome. Belisarius immediately sallied out by the Flaminian gate, and fell upon the Goths in order to give his allies time to enter by the opposite side of the city, which they did without the loss of a man.—The Goths hearing of the arrival of these troops, and their numbers being magnified as is usual in such cases, began to despair of becoming masters of the city; especially as the famine and plague raged with great violence in their camp, and their army was much reduced. Ambassadors were therefore dispatched to Belisarius with proposals of peace; but the only thing they could obtain was a cessation of arms for three months, during which time they might send ambassadors to the emperor. The negociations with the emperor, however, proved unsuccessful; and the siege was pursued with great vigour till Vitiges received the news of the taking of Rimini by the Romans. As this city was but a day's journey from Ravenna, the Goths were so much alarmed, that they immediately raised the siege of Rome, after it had continued a year and nine days. Belisarius fell upon their rear as they passed the bridge of the Tiber, and cut great numbers of them in pieces, while others, struck with a panic, threw themselves into the river and were drowned.

19 The siege raised.

The first enterprise of Vitiges, after raising the siege of Rome, was an attempt upon Rimini; but while he was employed in this siege, the Romans made themselves masters of Milan; upon which a Gothic general, named *Uraia*, was immediately despatched with a powerful army to retake it. In the mean time, however, a supply of 7000 Romans arrived from the emperor, under the command of Narses, a celebrated general. The immediate consequence of this was the raising of the siege of Rimini; for Vitiges perceiving the two Roman armies coming against him, and concluding, from the many fires they made, that they were much more numerous than they really were, fled in such haste, that the greatest part of the baggage was left behind. The confusion of the Goths was so great, that, had not the garrison been extremely feeble, they might have easily cut them off in their retreat, and thus put an end to the war at once. The success of the Romans, however, was now retarded by some misunderstandings between the two generals: so that, though Belisarius made himself master of Urbinum and Urbiventum, while Narses reduced some other places, yet the important city of Milan was suffered to fall into the hands of the Goths, who massacred all the inhabitants that were able to bear arms, to the number of 30,000, and sold the women for slaves. The city was also totally demolished; and this disaster made such an impression on the mind of Justinian, that he immediately recalled Narses, and gave the command of his troops to Belisarius.

20 Milan taken by the Goths.

Italy.

Vitiges, who had promised himself great advantages from the disagreement of the two generals, was much disappointed by the recal of Narses: and therefore dreading the power of Belisarius when at the head of a formidable army, thought of engaging in alliance with some foreign prince. In his choice, however, he was somewhat at a loss. He knew the treachery of the Franks, and therefore did not apply to them. He applied to the Lombards; but, though tempted by the offer of a large sum of money, they continued inviolably attached to the Roman interest. At last he found means to persuade Chosroes king of Persia to make war upon Justinian, which he thought would infallibly procure the recal of Belisarius. But the Roman general, understanding his design, pushed on the war in the most vigorous manner; while, in the mean time, the treacherous Franks, thinking both nations sufficiently weakened by their mutual hostilities, resolved to attack both, and seize upon the country for which they contended. Accordingly, Theodebert, unmindful of the oaths he had taken both to the Goths and Romans, passed the Alps, at the head of 150,000, or, as some will have it, 200,000 men, and entered Liguria. As no hostilities were committed by them on their march, the Goths concluded that they were come to their assistance; and therefore took care to supply them with provisions. Thus they crossed the Po without opposition; and having secured the bridge, marched towards the place where a body of Goths was encamped; who, looking upon them as friends, admitted them without hesitation. But they were soon convinced of their mistake; for the Franks falling unexpectedly upon them, drove them out of the camp with great slaughter, and seized on their baggage and provisions. A body of Romans that lay at a small distance from the Goths, concluding that they had been defeated by Belisarius, advanced with great joy to meet *him* as they imagined; but the Franks falling unawares upon them, treated them as they had done the Goths, and made themselves masters of their camp. Thus they acquired a very considerable booty and store of provisions; but the latter being soon consumed, and the country round about quite exhausted, vast numbers of the Franks perished; so that Theodebert at last found himself obliged to return. In his way he destroyed Genoa and several other places, and arrived in his own dominions loaded with booty.

21 Italy invaded by the Franks.

In the mean time, Belisarius was making great progress. He took the cities of Auximum and Fæsulæ after an obstinate siege; the inhabitants of the former having for some time fed on grass before they would surrender. After this he invested Ravenna, the capital of all the Gothic dominions in Italy. The place was defended by a very numerous garrison, commanded by the king in person, who exerted all his bravery in the defence of his metropolis. As the siege, however, was pushed on with great vigour, it was evident that the city must at last submit; and the great successes of the Romans began to give jealousy to the neighbouring potentates.

22 Success of Belisarius.

Italy. potentates. Theodebert king of the Franks offered to assist Vitiges with an army of 500,000 men: but Belisarius, being informed of this negotiation, sent ambassadors to Vitiges, putting him in mind of the treachery of the Franks, and assured him that the emperor was ready to grant him very honourable terms. The king, by the advice of his counsellors, rejected the alliance of the Franks, and sent ambassadors to Constantinople; but in the mean time, Belisarius, in order to bring the citizens to his own terms, bribed one of them to set fire to a magazine of corn, by which means the city was soon straitened for want of provisions. But, notwithstanding this disaster, they still continued to hold out, till the arrival of the ambassadors from Constantinople, who brought very favourable terms. These were, That the country beyond the Po, with respect to Rome, should remain to the Goths; but that the rest of Italy should be yielded to the emperor, and the royal treasure of the Goths should be equally divided between him and the king. To these conditions, however, Belisarius positively refused to assent; being desirous of leading captive the king of the Goths, as he had formerly done the king of the Vandals, to Constantinople. He therefore pursued the siege with more vigour than ever, without hearkening to the complaints of his soldiers and officers, who were quite tired out with the length of the siege: he only obliged such of the officers as were of opinion that the the town could not be taken, to express their opinion in writing, that they might not deny it afterwards.

The Goths were as weary of the siege as the Romans; but fearing lest Justinian should transplant them to Thrace, formed a resolution, without the consent of their king, of surrendering to Belisarius himself, and declaring him emperor of the west. To this they were the more encouraged by the refusal of Belisarius to agree to the terms proposed by the emperor; whence they concluded that he designed to revolt, and make himself emperor of Italy. Of this, however, Belisarius had no design; but thought proper to accept of that title, in order to accelerate the surrender of the city, after acquainting his principal officers with what had passed. Vitiges at last discovered the plot; but finding himself in no condition to oppose it, he commended the resolution of his people, and even wrote to Belisarius, encouraging him to take upon him the title of *king*, and assuring him of his assistance. Upon this Belisarius pressed the Goths to surrender; which, however, they still refused, till he had taken an oath that he would treat them with humanity, and maintain them in the possession of all their rights and privileges. He was then admitted into the city, where he conducted himself with great moderation towards the Goths; but seized on the royal treasure, and secured the person of the king. The Roman army, when it entered Ravenna, appeared so very inconsiderable, that the Gothic women on beholding it could not forbear spitting in the faces of their husbands, and reviling them as cowards.

23 Ravenna reduced, and Vitiges taken prisoner.

The captivity of Vitiges, and the capture of Ravenna, did not terminate the war. Belisarius was soon after recalled to take the command of the army in the east. The Goths were greatly surprised that he should leave his new kingdom out of regard to the orders of the emperor; but, after his departure, chose one Ildebald, a man of great experience in affairs both civil and military, for their king. He revived the drooping spirits of his countrymen, defeated the Romans, and reduced all the province of Venetia; but was in a short time murdered, and Eraric, a Rugian, succeeded to the throne. He was scarcely invested with the sovereignty, when his subjects began to think of deposing him, and raising Totila to the throne; which the latter accepted, upon condition that they previously dispatched Eraric. This was accordingly done; after which Totila was proclaimed king of Italy in the year 542. Italy.

24 Success of Totila against the Romans.

The new king proved a very formidable enemy to the Romans, who now lost ground everywhere. They made an attempt on the city of Verona; in which they miscarried through their own avarice, having disputed about the division of the plunder till the opportunity of taking the town was past. They were next defeated in two bloody engagements; the consequence of which was, that the Goths made themselves masters of all the strong places in Tuscany. From thence marching into Campania and Samnium, they reduced the strong town of Beneventum, and laid siege to Naples. During the siege of this last place, several detachments were sent from the king's army, which took Cumæ, and recovered all Brutia, Lucania, Apulia, and Calabria, where they found considerable sums which had been gathered for the emperor's use. The Romans, in the mean time, disheartened by their losses, and deprived of those sums which should have paid their wages, refused to take the field. A considerable fleet was therefore sent by Justinian to the relief of Naples: but Totila, having timely notice of this design, manned, with incredible expedition, a great number of light vessels; which, falling unexpectedly on the Roman fleet, took or sunk every ship, and made prisoners of all on board, excepting a few who escaped in their boats. A similar fate attended another fleet dispatched from Sicily for the same purpose. They put to sea in the depth of winter; and, meeting with a violent storm, were driven ashore near the enemy's camp; who sunk the ships, and made what slaughter they pleased of the seamen and soldiers. Upon this second disaster the Neapolitans, despairing of further relief, submitted to Totila; who granted them honourable terms, and treated them with great humanity. As they had been long pinched with famine, Totila, apprehending they might endanger their lives by indulging their appetites too much at first, placed guards at the gates to prevent their going out, taking care at the same time to supply them sparingly with provisions, but increasing their allowance every day. Being thus by degrees restored to their former strength, he ordered the gates to be set open, and gave every one full liberty to stay in the city or remove as he thought fit. The garrison he treated with extraordinary kindness. They were first supplied with ships to carry them to Constantinople; but the king having discovered that their real design was to sail to Rome, in order to reinforce the garrison of that city (which they knew he was soon to besiege), he was so far from punishing them as they expected, that he furnished them with horses, waggons, and provisions, and ordered a body of Goths to escort them to Rome by

Italy. land, as the winds had proved unfavourable for their passage by sea.

Totila having thus become master of Naples and most of the other fortresses in these parts, began to think of reducing Rome also. He first attempted to persuade the citizens to a surrender: but finding his persuasions ineffectual, he sent a detachment of his army into Calabria to reduce Otranto, which had not yet submitted; after which, he marched with the rest of his forces against the towns in the neighbourhood of Rome. The city of Tibur, now Tivoli, about 18 miles from Rome, was betrayed to him; and all the inhabitants, together with their bishop, were put to the sword. Several other strong holds in the neighbourhood of that city he took by storm; so that Rome was in a manner blocked up by land, all communication with the neighbouring country being cut off.

Justinian, in the mean time, being greatly perplexed by the bad news he every day received from Italy, recalled Belisarius from Persia, notwithstanding the success which attended him there. To save Rome, however, was now impossible even for Belisarius himself. As soon as he arrived in Italy, finding himself unable either to relieve the towns which were besieged, or to stop the progress of the Goths, he dispatched letters to Justinian, informing him, that being destitute of men, arms, and money, it was impossible for him to prosecute the war; upon which the emperor ordered new levies to be made, all the veterans being engaged in the Persian war. In the mean time, however Totila pursued his good fortune; took the cities of Firmum, Aseulum, Auximum, Spoletum, &c. and at length advanced to Rome, which he invested on all sides. As he drew near the city, two officers, whom Belisarius had sent into the city, ventured to make a sally, though contrary to the express orders of their general, thinking they should surprise the Goths; but they were themselves taken in an ambuscade, and, most of their men being cut in pieces, narrowly escaped falling into the hands of the enemy. Belisarius made several attempts to relieve the city: but all of them, however well concerted, by some accident or other proved unsuccessful; which gave him so much uneasiness, that he fell into a feverish disorder, and was for some time thought to be in danger of his life. The city was soon reduced to great straits; a dreadful famine ensued; and the unhappy citizens having consumed every thing that could be supposed to give them nourishment, even the grass that grew near the walls, were obliged, it is said, to feed on their own excrements. Many put an end to their lives, in order to free themselves from the intolerable calamities they suffered. The rest addressed their governor Bessas in the most pathetic manner, intreating him to supply them with food; or if that was not in his power, either to give them leave to go out of the town, or to terminate their miseries by putting them to death. Bessas replied, that to supply them with food was impossible; to let them go, unsafe; and to kill them impious. In the end, however, he suffered those who were willing to retire, to leave the city, upon paying him a sum of money; but most of them either died on the road, or were cut in pieces by the enemy. At last, the besieged, unable to bear their miseries any longer, began to mutiny, and to press their governor to come to an agreement with

25 Rome besieged,

Totila. This, however, he still refused; upon which, four of the Isaurians who guarded one of the gates, went privately to the camp of Totila, and offered to admit him into the city. The king received this proposal with great joy; and sending four Goths of great strength and intrepidity into the town along with them, he silently approached the gates in the night-time with his whole army. The gates were opened by the Isaurians, as they had promised; and upon the first alarm, Bessas with most of the soldiers and officers fled out of the town. The inhabitants took sanctuary in the churches; and only 60 of them and 26 soldiers were killed after the town was taken. Totila, however, gave his soldiers full liberty to plunder the city: which they did for several days together, stripping the inhabitants of all their wealth, and leaving nothing in their houses but naked walls; by which means many persons of distinction were reduced to beg their bread from door to door. In the house of Bessas was found an immense treasure, which he had scandalously amassed during the siege, by selling to the people, at an exorbitant price, the corn which had been stored up for the use of the garrison.

Italy. 26 and taken.

Totila, thus become master of Italy, sent ambassadors to Justinian with very respectful letters, desiring to live on the same terms with him that Theodoric had done with his predecessor Anastasius; promising in that case to respect him as his father, and to assist him, when he pleased, with all his force, against any other nation whatever. On the contrary, if the emperor rejected his offers, he threatened to level Rome with the ground, to put the whole senate to the sword, and to carry the war into Illyricum. The emperor returned no other answer, than that he referred the whole to Belisarius, who had full power to manage all things of that nature. Upon this Totila resolved to destroy the city; and had actually thrown down a third part of the wall, when he received a letter from Belisarius, dissuading him from his intention. After having seriously considered this letter, Totila thought proper to alter his resolution with regard to the destruction of the city; but sent every one of the inhabitants into Lucania, without leaving a single person in the metropolis. Belisarius hearing of this, immediately returned to the capital, and undertook to repeople and repair it. He cleared the ditch which had been filled by Totila, but was for the present obliged to fill up the breaches in the walls with stones loosely heaped upon one another, and in this situation the city was again attacked by the Goths. Belisarius, however, had taken care to supply the inhabitants with plenty of provisions, so that they were now in no danger of suffering by famine; and the assaults of the enemy were vigorously repelled, notwithstanding the bad situation of the fortifications, so that Totila at last abandoned the enterprise.

In the mean time the Persians gained great advantages over the Romans in the East, so that there was a necessity for recalling Belisarius a second time. He was no sooner gone, than Totila renewed his efforts with greater vigour than ever; and at the same time the Franks, concluding that both Romans and Goths would be much weakened by such a destructive war, seized upon Venetia, which belonged to both nations, and made it a province of the French empire. Totila did not oppose them; but having obtained a reinforcement

27 Belisarius recalled.

of

Italy. of 6000 Lombards, returned immediately before Rome, fully intent on making himself master of that metropolis. Having closely invested it by sea and land, he hoped in a short time to reduce it by famine: but against this the governor wisely provided, by causing corn to be sown within the walls; so that he could probably have defied the power of Totila, had not the city been again betrayed by the Isaurians, who opened one of the gates and admitted the enemy.

Thus the empire of the Goths was a third time established in Italy; and Totila, immediately on his becoming master of Rome, dispatched ambassadors to Justinian, offering to assist him as a faithful ally against any nation whatever, provided he would allow him the quiet possession of Italy. But Justinian was so far from hearkening to this proposal, that he would not even admit the ambassadors into his presence; upon which Totila resolved to pursue the war with the utmost vigour, and to make himself master not only of those places which the Romans possessed in Italy, but in Sicily also. This he fully accomplished; when Narses, who had formerly been joined in the command with Belisarius, was appointed general, with absolute and uncontrouled authority. But while this general was making the necessary preparations for his expedition, Totila, having equipped a fleet of 300 galleys, sent them to pillage the coasts of Greece, where they got an immense booty. They made a descent on the island of Corfu; and having laid it waste, they sailed to Epirus, where they surprised and plundered the cities of Nicopolis and Anchialus, taking many ships on the coast, among which were some laden with provisions for the army of Narses. After these successes they laid siege to Ancona in Dalmatia. Being defeated, however, both by sea and land, Totila once more sent ambassadors to Constantinople, offering to yield Sicily and all Dalmatia, to pay an annual tribute for Italy, and to assist the Romans as a faithful ally in all their wars: but Justinian, bent upon driving the Goths out of Italy, would not even suffer the ambassadors to appear in his presence.

28 Narses sent into Italy.

Totila finding that no terms could be obtained, began to levy new forces, and to make great preparations by sea and land. He soon reduced the islands of Corsica and Sardinia; but this was the last of his successes. Narses arrived in Italy with a very formidable army, and an immense treasure to pay the troops their arrears, the want of which had been one great cause of the bad success of Belisarius in his last expedition. He immediately took the road to Rome; while Totila assembled all his forces, in order to decide the fate of Italy by a general engagement. The battle proved very obstinate; but at last the Gothic cavalry being put to the rout, and retiring in great confusion among the infantry, the latter were thereby thrown into such disorder, that they could never afterwards rally. Narses, observing their confusion, encouraged his men to make a last effort; which the Goths not being able to withstand, betook themselves to flight, with the loss of 6000 men killed on the spot. Totila finding the day irrecoverably lost, fled with only five horsemen for his attendants; but was pursued and mortally wounded by a commander of one of the bodies of barbarians who followed Narses. He continued his flight, however, for some time longer; but was at last obliged to halt in order to get his wound dressed, soon after which he expired.

29 Who defeats and kill Totila.

This disaster did not yet entirely break the spirit of the Goths. They chose for their king one Teia, deservedly esteemed one of the most valiant men of their nation, and who had on several occasions distinguished himself in a most eminent manner. All the valour and experience of Teia, however, were now insufficient to stop the progress of the Romans. Narses made himself master of a great number of cities, and of Rome itself, before the Goths could assemble their forces.—The Roman general next proceeded to invest Cumæ; which Teia determined at all events to relieve, as the royal treasure was lodged in that city. This brought on an engagement, which, if Procopius is to be credited, proved one of the most bloody that ever was fought. The Roman army consisted of vast multitudes brought from different nations: the Goths were few in comparison; but, animated by despair, and knowing that all was at stake, they fought with the utmost fury. Their king placed himself in the first rank, to encourage his men by his example; and is said to have given such proofs of his valour and conduct as equalled him to the most renowned heroes of antiquity. The Romans discovering him, and knowing that his death would probably put an end to the battle, if not to the war itself, directed their whole force against him, some attacking him with spears, and others discharging against him showers of darts and arrows. Teia maintained his ground with great intrepidity, received the missive weapons on his shield, and killed a great number of the enemy with his own hand. When his shield was so loaded with darts that he could not easily wield it, he called for another. Thus he shifted his shield three times; but as he attempted to change it another time, his breast being necessarily exposed for a moment, a dart struck him in that moment with such force, that he immediately fell down dead in the place where he had stood from the beginning of the battle, and upon heaps of the enemy whom he had killed. The Romans, seeing him fall, cut off his head and exposed it to the sight of the Goths, not doubting but they would be immediately disheartened and retire. In this, however, they were disappointed. The Goths maintained the fight with great vigour, till night put an end to the engagement. The next day the engagement was renewed early in the morning, and continued till night: but on the third day, the Goths despairing of being able to overcome an enemy so much superior to them in numbers, sent deputies to Narses, offering to lay down their arms, provided such of them as chose to remain in Italy were allowed to enjoy their estates and possessions without molestation, as subjects of the empire; and those who were willing to retire elsewhere, were suffered to carry with them all their goods and effects. To these terms Narses readily assented; and thus the empire of the Goths in Italy was finally destroyed, the country now becoming a province of the eastern Roman empire.

30 and Teia.

31 The end of the empire of the Goths in Italy.

In this conquest Narses had been assisted, as already observed, by many barbarous nations, among whom were the Lombards, at that time settled in Pannonia. On the conclusion of the war, they were dismissed with rich presents, and the nation for some time

continued

Italy.

continued faithful allies to the Romans. In the mean time Justinian dying, Narses, who governed Italy with an absolute sway, was accused to the emperor Justin II. and to the empress Sophia, of aspiring to the sovereignty of the country. Hereupon he was recalled, and Longinus sent to succeed him. As Narses was an eunuch, the empress is reported to have said, that his employment at Constantinople should be to distribute in the apartment of her women the portion of wool which each was to spin. Narses, enraged at this sarcasm, replied, that he should begin such a web as she should never be able to finish; and immediately dispatched messengers to Alboinus king of the Lombards, inviting them into Italy. Along with the messengers he sent some of the best fruits the country afforded, in order to tempt him the more to become master of such a rich kingdom.

32 Narses invites the Lombards.

Alboinus, highly pleased with the opportunity of invading a country with which his subjects were already well acquainted, began without loss of time to make the necessary preparations for his journey. In the month of April, 568, he set out with his whole nation, men, women, and children; carrying with them all their moveables. This promiscuous multitude arrived by the way of Istria; and advancing through the province of Venetia, found the whole country abandoned, the inhabitants having fled to the neighbouring islands in the Adriatic. The gates of Aquileia were opened by the few inhabitants who had courage to stay: most of them, however, had fled with all their valuable effects; and among the rest the patriarch Paulinus, who had carried with him all the sacred utensils of the churches. From Aquileia, Alboinus proceeded to Forum Julii, of which he likewise became master without opposition. Here he spent the winter; during which time he erected Friuli into a dukedom, which has continued ever since. In 569, he made himself master of Trivigi, Oderzo, Monte Selce, Vicenza, Verona, and Trent; in each of which cities he left a strong garrison of Lombards under the command of an officer, whom he distinguished by the title of *duke*: but these dukes were only officers and governors of cities, who bore the title no longer than the prince thought proper to continue them in their command or government. Padua and some other cities Alboinus left behind him without attempting to reduce them, either because they were too well garrisoned, or because they lay too much out of his way. In 570, he entered Liguria. The inhabitants were so terrified at his approach, that they left their habitations with such of their effects as they could carry off, and fled into the most mountainous and inaccessible parts of the country. The cities of Brescia, Bergamo, Lodi, Como, and others quite to the Alps, being left almost without inhabitants, submitted of course; after which he reduced Milan, and was thereupon proclaimed king of Italy.

33 Who reduce the greatest part of Italy.

But though the Lombards had thus conferred the title of king of Italy on their sovereign, he was by no means possessed of the whole country, nor indeed was it ever in the power of the Lombards to get possession of the whole. Alboinus having made himself master of Venetia, Liguria, Æmilia, Hetruria, and Umbria, applied himself to legislation and the civilization of his subjects. But before he could make any progress in this work, he was taken off by the treachery of his wife; and Clephis, one of the nobles, chosen king in his stead. Clephis rebuilt some cities which had been ruined during the wars between the Goths and Romans, and extended his conquests to the very gates of Rome; but as he behaved both to the Romans and Lombards with the greatest cruelty, he was murdered, after a short reign of 18 months. His cruelty gave the Lombards such an aversion against regal power, that they changed their form of government, being governed only by their dukes for the space of ten years. During this interregnum, they proved successful in their wars with the Romans, and made themselves masters of several cities: but perceiving that their kingdom, thus divided, could not subsist, they resolved once more to submit to the authority of one man; and accordingly, in 585, Autharis was chosen king of the Lombards.

Italy.

34 Subdued by Charlemagne.

The great object of ambition to the new race of Lombard monarchs was the conquest of all Italy; and this proved at last the ruin of their empire by Charles the Great, as related under the article FRANCE, N° 27. As the Lombards, however, had not been possessed of the whole territory of Italy, so the whole of it never came into the possession of Charlemagne: neither since the time of the Goths, has the whole of this country been under the dominion of any single state. Some of the southern provinces were still possessed by the emperors of Constantinople; and the liberal grants of Pepin and Charlemagne himself to the pope, had invested him with a considerable share of temporal power. The territories of the pope indeed were supposed to be held in vassalage from France; but this the popes themselves always stiffly denied. The undisputed territory of Charlemagne in Italy, therefore, was restricted to Piedmont, the Milanese, the Mantuan, the territory of Genoa, Parma, Modena, Tuscany, Bologna, the dukedoms of Friuli, Spoleto, and Benevento; the last of which contained the greatest part of the present kingdom of Naples.

35 Extent of his Italian dominions.

The feudal government which the Lombards had introduced into Italy, naturally produced revolts and commotions, as the different dukes inclined either to change their masters or to set up for themselves. Several revolts indeed happened during the life of Charlemagne himself; which, however, he always found means to crush: but after his death, the sovereignty of Italy became an object of contention between the kings of France and the emperors of Germany. That great monarch had divided his extensive dominions among his children; but they all died during his lifetime, except Louis, whom he associated with himself in the empire, and who succeeded to all his dominions after his death. From this time we may date the troubles with which Italy was so long overwhelmed; and of which, as they proceeded from the ambition of those called kings of Italy and their nobles, of the kings of France, and of the emperors of Germany, it is difficult to have any clear idea. The following short sketch, however, may perhaps give some satisfaction on this perplexed subject.

36 History of the disturbances in Italy after the time of Charlemagne.

At the time Louis the son of Charlemagne was declared emperor of the West, Italy was held by Bernard the son of Pepin, brother to Louis. Though this Bernard bore the title of *king*, yet he was only accounted

Italy. counted a vassal of the emperor. His ambition, however, soon prompted him to rebel against his uncle; but being abandoned by his troops, he was taken prisoner, had his eyes pulled out, and died three days after. As the disturbances still continued, and the nobles of Lombardy were yet very refractory, Lothaire, eldest son to the emperor, was in the year 823 sent into Italy; of which country he was first crowned king at Rome, and afterwards emperor of the West, during his father's life-time. But though his abilities were sufficient to have settled every thing in a state of tranquillity, his unbounded ambition prompted him to engage in a rebellion against his father; whom he more than once took prisoner; though in the end he was obliged to submit, and ask pardon for his offences, which he obtained only on condition of his not passing the Alps without leave obtained from his father.

In the mean time. the Saracens, taking advantage of these intestine wars, landed on the coasts of Italy, and committed such ravages, that even the bishops were obliged to arm themselves for the defence of the country. Lothaire, however, after returning from his unnatural war with his father, was so far from attempting to put an end to these ravages, or to restore tranquillity, that he seized on some places belonging to the see of Rome, under pretence that they were part of his kingdom of Lombardy; nor would he forbear these encroachments till expressly commanded to do so by his father. After having embroiled himself, and almost lost all his dominions, in a war with his brothers after the death of Louis, and declared his son, also called Louis, king of Italy, this ambitious prince died, leaving to Louis the title of *emperor* as well as *king of Italy*, with which he had before invested him.

The new emperor applied himself to the restoration of tranquillity in his dominions, and driving out the Saracens from those places which they had seized in Italy. This he fully accomplished, and obliged the infidels to retire into Africa; but in 875 he died without naming any successor. After his death, some of the Italian nobles, headed by the duke of Tuscany, represented to the pope, that as Louis had left no successor, the regal dignity, which had so long been usurped by foreigners, ought now to return to the Italians. The pope, however, finding that Charles the Bald, king of France, had such an ambition for the imperial crown, that he would stick at nothing to obtain it, resolved to gratify him, though at as high a price as possible. He accordingly crowned him emperor and king of Lombardy, on condition of his owning the independency of Rome, and that he himself only held the empire by the gift of the pope. This produced a conspiracy among the discontented nobles; and at the same time the Saracens renewing their incursions, threatened the ecclesiastical territories with the utmost danger. The pope solicited the emperor's assistance with the greatest earnestness; but the latter died before any thing effectual could be done; after which, being distressed by the Saracens on one hand, and the Lombard nobles on the other, the unhappy pontiff was forced to fly into France. Italy now fell into the utmost confusion and anarchy; during which time many of the nobles and states of Lombardy assumed an independence, which they have ever since retained. Italy.

In 877 the pope was reconducted to Italy with an army by Boson son-in-law to Louis II. of France: but though he inclined very much to have raised this prince to the dignity of king of Italy, he found his interest insufficient for that purpose, and matters remained in their former situation. The nobles, who had driven out the pope, were now indeed reconciled to him: but notwithstanding this reconciliation, the state of the country was worse than ever: the great men renouncing the authority of any superior, and every one claiming to be sovereign in his own territories. To add to the calamities which ensued through the ambition of these despots, the Saracens committed every where the most terrible ravages; till at last, the Italian nobles, despising the kings of the Carlovingian race, who had weakened themselves by their mutual dissensions, began to think of throwing off even all nominal submission to a foreign yoke, and retaining the imperial dignity among themselves. Thus they hoped, that, by being more united among themselves, they might be more able to resist the common enemy. Accordingly, in 886, they went to Pope Adrian; and requesting him to join them in asserting the independency of Italy, they obtained of him the two following decrees, viz. that the popes, after their election, might be consecrated without waiting for the presence of the king or his ambassadors; and that if Charles the Gross died without sons, the kingdom of Italy, with the title of *emperor*, should be conferred on some of the Italian nobles.

These decrees were productive of the worst consequences imaginable. The emperor complained of being deprived of his right; and the dissensions between the Italian nobles themselves became more fatal than ever. The two most powerful of these noblemen, Berengarius duke of Friuli, and Guido or Vido, duke of Spoleto, entered into an agreement, that on the death of the emperor, the former should seize on the kingdom of Italy, and the latter on the kingdom of France. Berengarius succeeded without opposition; but Vido was disappointed, the French having already chosen Eudes or Otho for their king. Upon this he returned to Italy, and turned his arms against Berengarius. Vido proved victorious in an engagement, and drove his rival into Germany; where he sought the assistance of Arnolphus, who had succeeded to the crown after the death of Charles. Having thus obtained the kingdom of Italy, Vido employed his time in reforming the abuses of the state, and confirming the grants formerly given to the pope, out of gratitude for his having sanctified his usurpation and declared him lawful king of Italy. This tranquillity, however, was of short duration. Arnolphus sent an army into Italy; the Saracens from Spain ravaged the northern parts of the country, and getting possession of a castle near the Alps, held it for many years after, to the great distress of the neighbouring parts, which were exposed to their continual incursions; and at the same time Benevento was besieged and taken by the forces of the eastern emperor, so that Vido found his empire very considerably circumscribed in its dimensions.

The new king, distressed by so many enemies, associated his son Lambert with him in the government, and

Italy. and bribed the Germans to return to their own country. In 893, however, they again invaded Italy; but were suddenly obliged to leave the country, after having put Berengarius in possession of Pavia. In the mean time, Vido died, and his son Lambert drove out Berengarius: but having joined a faction, headed by one Sergius, against Pope Formosus, the latter offered the kingdom of Italy to Arnolphus; who thereupon entered the country with an army, besieged and took Rome, massacring the faction of Sergius with the most unrelenting cruelty.

Arnolphus thus master of Italy, and crowned emperor by the pope, began to form schemes of strengthening himself in his new acquisitions by putting out the eyes of Berengarius: but the latter having timely notice of this treachery, fled to Verona; and the Italians were so provoked at this and the other cruelties of Arnolphus, that they drove him out of the country. His departure occasioned the greatest confusion at Rome. Formosus died soon after; and the successors to the papal dignity, having now no army to fear, excited the greatest disturbances. The body of Formosus was dug up and thrown into the Tiber by one pope; after which that pope was strangled, and Formosus's body buried again in the Vatican, by order of another. At last the coronation of Arnolphus was declared void, the Sergian faction entirely demolished, and the above-mentioned decrees of Adrian were annulled; it being now determined that the elected popes should not be consecrated but in presence of the emperor or his ambassadors.

During these confusions Lambert enjoyed the kingdom in quiet; but the nobles hating him on account of his arbitrary and tyrannical government, began again to think of Berengarius. In the mean time, however, another faction offered the crown to Louis king of Arles. This new competitor entered Italy with an army in 899; but was forced by Berengarius to renounce his claim upon oath, and to swear that he would never again enter Italy, even though he should be invited to be crowned emperor.—This oath, however, was soon forgot. Louis readily accepted of another invitation, and was crowned king of Italy at Pavia in 901. The following year he forced Berengarius to fly into Bavaria; but having unadvisedly disbanded his army, as thinking himself now securely seated on the throne, Berengarius, who watched every opportunity, surprised him at Verona, and put out his eyes.

Thus Berengarius at last became king of Italy without a rival; and held his kingdom for 20 years afterwards, without any opposition from his subjects, who at last became sensible of the mischiefs arising from civil discords. He was not yet, however, without troubles. The Hungarians invaded Italy with a formidable army, and advanced within a small distance of Pavia. Berengarius armed the whole force of his dominions; and came against them with such a multitude, that the Hungarians retired without venturing an engagement. A great many of their men were lost in passing a river; upon which they sent deputies to Berengarius, offering to restore all their booty, and never to come again into Italy, provided they were allowed a safe retreat. These conditions were imprudently denied; upon which the Hungarians attacked the army of Berengarius in despair, and defeated them with great slaughter. After this they overran the whole country, and plundered the towns of Treviso, Vicenza, and Padua, without resistance, the inhabitants flying everywhere into fortified places. This devastation they continued for two years; nor could their departure be procured without paying them a large sum of money: which, however, proved of little avail; for the following year they returned and ravaged the territory of Friuli without controul. Scarcely were these invaders departed, when the Saracens, who had settled at the foot of the Alps, invaded Apulia and Calabria, and made an irruption as far as Aequi in the neighbourhood of Pavia; while the inhabitants, instead of opposing them, fled to some forts which had been erected in the time of the first irruption of the Hungarians. In 912, however, John, presbyter of Ravenna, having attained the papal dignity by means of Theodora wife of Aldebert count of Tuscany, applied himself to regulate the affairs of the church, and to repress the insults of the Saracens. While he was considering on the most proper methods of effecting this, one of the Saracens, who had received an injury from his countrymen, fled to Rome, and offered to deliver the Italians from their invasions, if the pope would but allow him a small body of men. His proposals being accepted, 60 young men were chosen all well armed; who being conducted by the Saracen into by-paths, attacked the infidels as they were returning from their inroads, and several times defeated great parties of them. These losses affecting the Saracens, a general alliance was concluded amongst all their cities; and having fortified a town on the Garigliano, they abandoned the rest, and retired hither. Thus they became much more formidable than before; which alarming the pope, he consulted with Arnulphus prince of Benevento and Capua, sending at the same time ambassadors to Constantine the Greek emperor, inviting him to an alliance against the infidels. The Saracens, unable to withstand such a powerful combination, were besieged in their city: where being reduced to great straits, they at last set fire to it, and sallied out into the woods; but being pursued by the Italians, they were all cut off to a man.

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In this expedition it is probable that Berengarius gave great assistance: for this very year, 915, he was crowned emperor by the pope. This gave displeasure to many of the ambitious nobles; conspiracies were repeatedly formed against him; in 922, Rodolphus king of Burgundy was crowned also king of Italy; and in 924, Berengarius was treacherously assassinated at Verona; of which disturbances the Hungarians taking the advantage, plundered the cities of Mantua, Brescia, and Bergamo. Marching afterwards to Pavia, they invested it closely on all sides; and about the middle of March 925, taking advantage of the wind, they set fire to the houses next to the walls, and during the confusion broke open the gates, and getting possession of the city treated the inhabitants with the greatest barbarity. Having burnt the capital of the kingdom, they next proceeded to Placenza, where they plundered the suburbs; and then returned to Pannonia laden with booty.

37 Pavia plundered and burnt by the Hungarians.

The affairs of Italy now fell into the utmost confusion. A faction was formed against Rodolphus in favour of Hugh count of Arles. The latter prevailed, and was crowned king at Pavia in 927. The Italians, however, soon repented of their choice. The Romans, first

Italy. first invited him to be their governor, and then drove him out with disgrace; at the same time choosing a consul, tribunes, &c. as if they had designed to assert their ancient liberty. One faction, in the mean time, offered the crown to Rodolphus, and the other to Arnold duke of Bavaria, while the Saracens took this opportunity to plunder the city of Genoa.

Hugh, in the mean time, was not inactive. Having collected an army, he marched directly against Arnold, and entirely defeated him. Rodolphus delivered him from all apprehensions on his part, by entering into an alliance with him, and giving his daughter Adelaide in marriage to Lotharius, Hugh's son. Being thus free from all danger from foreign enemies, he marched against the Romans; but with them he also came to an agreement, and even gave his daughter in marriage to Alberic, whom they had chosen consul. In the mean time the country was infested by the Hungarians and Saracens, and at the same time depopulated by a plague. Endless conspiracies were formed against Hugh himself; and at last, in 947, he was totally deprived of the regal power by Berengarius, grandson to the first king of that name; soon after which he retired into Burgundy, and became a monk.

Though Berengarius was thus possessed of the supreme power, he did not assume the title of *king* till after the death of Lotharius, which happened in 950; but in the mean time Italy was invaded by Henry duke of Bavaria, and the Hungarians. The former took and plundered the city of Aquileia, and ravaged the neighbouring country; after which he returned without molestation into Germany: the latter made a furious irruption; and Berengarius being unable to oppose them, was at last obliged to purchase their departure by money. In raising the sum agreed upon, however, Berengarius is said to have been more oppressive than even the Hungarians themselves. Every individual, without distinction of age or sex, was obliged to pay so much for their head, not excepting even the poor. The churches were likewise robbed; by which means the king raised an immense sum of money, ten bushels of which he gave to the Hungarians, but kept the much greater part to himself.

38 Italy oppressed by the Hungarians and Berengarius.

Berengarius, not yet satisfied, wanted to be put in possession of Pavia, which was held by Adelaide, the widow of Lotharius. In order to obtain his purpose, he proposed a marriage between her and his son Adelbert. This proposal was rejected; upon which Berengarius besieged and took the city. The queen was confined in a neighbouring castle, from whence she made her escape by a contrivance of her confessor. With him and one female attendant she concealed herself for some days in a wood; but being obliged to remove from thence for want of food, she applied for protection to Adelard bishop of Reggio. By him she was recommended to his uncle Atho, who had a strong castle in the neighbourhood of Canoza. Here she was quickly besieged by Berengarius; upon which messengers were dispatched to Otho king of Germany, acquainting him, that, by expelling Berengarius, and marrying Adelaide, he might easily obtain the kingdom of Italy. This proposal he readily accepted, and married Adelaide; but allowed Berengarius to retain the greatest part of his dominions, upon condition of his doing homage for them to the kings of Germany. He deprived him however, of the dukedom of Friuli and marquisate of Verona, which he gave to Henry duke of Bavaria. Italy.

39 Otho crowned king of Italy and emperor of the west.

Berengarius, thus freed from all apprehension, not only oppressed his subjects in a most tyrannical manner, but revolted against Otho himself. This at last procured his ruin: for, in 961, Otho returned with an army into Italy, where he was crowned king by the archbishop of Milan; and the year following was crowned emperor by the pope. On this occasion he received the imperial crown from his holiness, and kissed his feet with great humility: after which they both went to the altar of St Peter, and bound themselves by a solemn oath, the pope to be always faithful to the emperor, and to give no assistance to Berengarius or Adelbert his enemies; and Otho, to consult the welfare of the church, and to restore to it all its patrimony granted by former emperors. Otho, besides this, bestowed very rich presents on the church of St Peter. He ordained that the election of popes should be according to the canons; that the elected pope should not be consecrated till he had publicly promised, in presence of the emperor's commissaries, to observe every thing formerly specified with regard to the rights of the emperors; that these commissaries should constantly reside at Rome, and make a report every year how justice was administered by the judges; and in case of any complaints, the commissaries should lay them before the pope; but if he neglected to intimate them, the imperial commissaries might then do what they pleased.

Thus we see that Otho, however much he might allow the pope's supremacy in spiritual matters, plainly assumed the sovereignty in temporals to himself; and thus Italy was for upwards of 300 years accounted a part of the German empire. The popes, however, by no means relished this superiority of the emperor. The latter was hardly departed, when the pope, (John XII.) broke the oath which he had just before sworn with so much solemnity; and entered first into an alliance with Adelbert count of Tuscany to expel the Germans, and then solicited the Hungarians to invade Italy. This treachery was soon punished by Otho. He returned with part of his army, and assembled a council of bishops. As the pope did not appear, Otho pretended great concern for his absence. The bishops replied, that the consciousness of his guilt made him afraid to show himself. The emperor then inquired particularly into his crimes; upon which the bishops accused him of filling the palace with lewd women, of ordaining a bishop in a stable, castrating a cardinal, drinking the devil's health, &c. As the pope still refused to appear in order to justify himself from these charges, he was formally deposed; and Leo the chief secretary, though a layman, elected in his stead.

40 He deposes the pope.

The new pope, in compliment to the emperor, granted a bull, by which it was ordained that Otho and his successors should have a right of appointing the popes and investing archbishops and bishops; and that none should dare to consecrate a bishop without leave obtained from the emperor. Thus were the affairs of the Italians still kept in the utmost confusion even during the reign of Otho I. who appears to have been a wise and active prince. He was no sooner gone, than the new

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new pope was deposed, all his decrees annulled, and John replaced. The party of Leo was now treated with great cruelty: but John was soon stopped in his career; for about the middle of May, the same year (964) in which he had been restored, being surprised in bed with a Roman lady, he received a blow on the head from the devil (according to the authors of those times), of which he died eight days after. After his death a cardinal deacon, named *Benedict*, was elected by the Romans, but deposed by Otho, and banished to Hamburgh.

41 The Italians revolt, but are reduced.

The emperor was scarce returned to Germany, when his fickle Italians revolted, and sent for Adelbert, who had fled to Corsica. But being soon reduced, they continued quiet for about a year; after which they revolted again, and imprisoned the pope. Otho, however, provoked at their rebellious disposition, soon returned, and punished the rebels with great severity; after which he made several laws for the better regulation of the city of Rome, granting several privileges to the Venetians, and caused his son Otho, then only thirteen years of age, to be crowned emperor.

This ceremony being over, Otho dispatched an ambassador to Nicephorus, emperor of Constantinople, demanding his step-daughter Theophania in marriage for the young emperor; but upon this alliance being rejected, and that not without circumstances of the most atrocious perfidy, Otho instantly invaded the countries of Apulia and Calabria, and entirely defeated the Greek army in those parts. In the mean time, however, Nicephorus being killed, and his throne usurped by John Zimisces, Otho immediately entered into an alliance with the latter, and easily obtained Theophania for his son. She was crowned with great solemnity on the 8th of April 969; at the same time it is pretended by some authors, that the Greeks renounced their rights to Calabria and Apulia; though this is denied by others. After the celebration of this marriage, the emperor undertook an expedition against the Saracens, who still resided at the foot of the Alps; but being informed of the death of several nobles in Germany, he thought proper to return thither, where he died of an apoplexy in the year 973.

42 State of Italy at the death of Otho.

At the time of Otho's death Italy was divided into the provinces of Apulia, Calabria, the dukedom of Benevento, Campania, Terra Romana, the dukedom of Spoleto, Tuscany, Romagna, Lombardy, and the marquisates of Ancona, Verona, Friuli, Treviso, and Genoa. Apulia and Calabria were still claimed by the Greeks; but all the rest were either immediately subject to, or held of, the kings of Italy. Otho conferred Benevento (including the ancient Samnium) on the duke of that name. Campania and Lucania he gave to the dukes of Capua, Naples, and Salerno. Rome with its territory, Ravenna with the exarchate, the dukedom of Spoleto, with Tuscany, and the marquisate of Ancona, he granted to the pope; and retained the rest of Italy under the form of a kingdom. Some of the cities were left free, but all tributary. He appointed several hereditary marquisates and counties, but reserved to himself the sovereign jurisdiction in their territories. The liberty of the cities consisted in a freedom to choose their own magistrates, to be judges by their own laws, and to dispose of their own revenues, on condition that they took the oath of allegiance to the king, and paid the customary tribute. The cities that were not free were governed by the commissaries or lieutenants of the emperor; but the free cities were governed by two or more consuls, afterwards called *potestates*, chosen annually, who took the oath of allegiance to the emperor before the bishop of the city or the emperor's commissary. The tribute exacted was called *foderum, parata, et mansionaticum*. By the *foderum* was meant a certain quantity of corn which the cities were obliged to furnish to the king when marching with an army or making a progress through the country; though the value of this was frequently paid in money. By the *parata* was understood the expence laid out in keeping the public roads and bridges in repair; and the *mansionaticum* included those expences which were required for lodging the troops or accommodating them in their camp. Under pretence of this last article, the inhabitants were sometimes stripped of all they possessed, except their oxen and seed for the land. Besides regulating what regarded the cities, Otho distributed honours and possessions to those who had served him faithfully. The honours consisted in the titles of *duke*, *marquis*, *count*, *captain*, *valvasor*, and *valvasin*: the possessions were, besides land, the duties arising from harbours, ferries, roads, fish-ponds, mills, salt-pits, the uses of rivers, and all pertaining to them, and such like. The dukes, marquises, and counts, were those who received dukedoms, marquisates, and counties, from the king in fiefs; the captains had the command of a certain number of men by a grant from the king, duke, marquis, or count; the valvasors were subordinate to the captains, and the valvasins to them.

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43 Great disturbances happen on the death of Otho I.

No sooner was the death of Otho I. known in Italy, than, as if they had been now freed from all restraint, the nobles declared war against each other: some cities revolted, and chose to themselves consuls; while the dominions of others were seized by the nobles, who confirmed their power by erecting citadels. Rome especially was harassed by tumults, occasioned chiefly by the seditious practices of one Cincius, who pressed his fellow-citizens to restore the ancient republic. As the pope continued firm in the interests of the emperor, Cincius caused him to be strangled by one Franco a cardinal deacon; who was soon after rewarded with the pontificate, and took upon him the name of *Boniface VII.* Another pope was chosen by the faction of the count of Tuscany; who being approved by the emperor, drove Cincius and Boniface out of the city. Disturbances of a similar kind took place in other cities, though Milan continued quiet and loyal in the midst of all this uproar and confusion.

In the mean time Boniface fled for refuge to Constantinople, where he excited the emperor to make war against Otho II. In 979 an army was accordingly sent into Italy, which conquered Apulia and Calabria; but the next year Otho entered Italy with a formidable army; and having taken a severe revenge on the authors of the disturbances, drove the Greeks entirely out of the provinces they had seized. Having then caused his son Otho III. at that time a boy of ten years of age, to be proclaimed emperor, he died at Rome in the year 983. Among the regulations made by this emperor, one is very remarkable, and must give us a strange

Italy. strange idea of the inhabitants of Italy at that time. He made a law, That no Italian should be believed upon his oath; and that in any dispute which could not be decided otherwise than by witnesses, the parties should have recourse to a duel.

Otho III. succeeded to the empire at twelve years of age; and during his minority the disturbances in Italy revived. Cincius, callled also *Crescentius*, renewed his scheme of restoring the republic. The pope (John XV.) opposing his schemes, was driven out of the city: but was soon after recalled, on hearing that he had applied to the emperor for assistance. A few years after Crescentius again revolted, and expelled Gregory V. the successor of John XV.; raising to the papal dignity a creature of his own, under the name of *John XVI.* Otho, enraged at this insult, returned to Rome with a powerful army in 998, besieged and took it by assault; after which he caused Crescentius to be beheaded, and the pope he had set up to be thrown headlong from the castle of St Angelo, after having his eyes pulled out, and his nose cut off. Four years after, he himself died of the smallpox; or, according to some, was poisoned by the widow of Crescentius, whom he had debauched under a promise of marriage, just as he was about to punish the Romans for another revolt.

44 Rome taken by Otho III.

Otho was succeeded in the imperial throne by Henry duke of Bavaria, and grandson to Otho II. Henry had no sooner settled the affairs of Germany, than he found it necessary to march into Italy against Ardouin marquis of Ivrea, who bad assumed the title of *king of Italy*. Him he defeated in an engagement, and was himself crowned king of Italy at Pavia in 1005; but a few years after, a new contest arose about the papal chair, which again required tbe presence of the emperor. Before be arrived, however, one of the competitors (Benedict VIII.) had got the better of his rival, and both Henry and his queen received the imperial crown from his hands. Before the emperor entered the church, the pope proposed to him the following question: "Will you observe your fidelity to me and my successors in every thing?" To which, though a kind of homage, he submitted, and answered in the affirmative. After his coronation, he confirmed tbe privileges bestowed on the Roman see by his predecessors, and added some others of his own; still, however, reserving for himself the sovereignty and the power of sending commissaries to hear the grievances of the people. Having repelled the incursions of the Saracens, repressed some more rebellions of his subjects, and reduced the greatest part of Apulia and Calabria, he died in the year 1024.

The death of this emperor was, as usual, followed by a competition for the crown. Conrad being chosen emperor of Germany, was declared king of Italy by the archbishop of Milan; while a party of the nobles made offer of the crown to Robert king of France, or his son Hugh. But this offer being declined, and likewise another to William duke of Guienne, Conrad enjoyed the dignity conferred on him by the archbishop without molestation. He was crowned king of Italy at Monza in 1026; and the next year he received the imperial crown from Pope John XX. in presence of Canute the Great, king of England, Denmark, and Norway, and Rodolph III. king of Burgundy. His reign was similar to that of his predecessors. Tbe Italians revolted, the pope was expelled, the malecontents were subdued, and the pope restored, after which the emperor returned to Germany, and died in 1039. Italy.

45 The disorders increase under Henry III.

Under Henry III. who succeeded Conrad, the disturbances were prodigiously augmented. Pope Sylvester II. was driven out by Benedict; who in his turn was expelled by John bishop of Sabinum, who assumed the title of *Sylvester III.* Three months after Benedict was restored, and excommunicated his rivals; but soon after resigned the pontificate for a sum of money. In a short time he reclaimed it; and thus there were at once three popes, each of whom was supported on a branch of the papal revenue, while all of them made themselves odious by the scandalous lives they led. At last a priest called *Gratian* put at end to this singular triumvirate. Partly by artifice, and partly by presents, he persuaded all tbe three to renounce their pretensions to the papacy; and the people of Rome, out of gratitude for so signal a service to the church, chose him pope, under the name of *Gregory VI.* Henry III. took umbrage at this election, in which he had not been consulted, and marched with an army into Italy. He deposed Gregory, as having been guilty of simony, and filled the papal chair with his own chancellor Heidiger, bishop of Bamberg, who assumed the name of *Clement II.* and afterwards consecrated Henry and the empress Agnes. This ceremony being over, and the Romans having sworn never to elect a pope without the approbation of the reigning emperor, Henry proceeded to Capua, where he was visited by Drago, Rainulphus, and other Norman adventurers; who leaving their country at different times, had made themselves masters of great part of Apulia and Calabria, at the expence of the Greeks and Saracens. Henry entered into treaty with them; and not only solemnly invested them with those territories which they had acquired by conquest, but prevailed on the pope to excommunicate the Beneventines, who had refused to open their gates to him, and bestowed that city and its dependencies, as fiefs of the empire, upon the Normans, provided they took possession by force of arms. The emperor was scarce returned into Germany when he received intelligence of the death of Clement II. He was succeeded in the apostolic see by Damasus II.; who also dying soon after his elevation, Henry nominated Bruno bishop of Toul to the vacant chair. This Bruno, who was the emperor's relation, immediately assumed the pontificals; but being a modest and pious prelate, he threw them off in his journey, by the persuasion of a monk of Cluny, named *Hildebrand*, afterwards the famous Gregory VII. and went to Rome as a private man. "The emperor aloue (said Hildebrand) has no right to create a pope." He accompanied Bruno to Rome, and secretly retarded his election, that he might arrogate to himself the merit of obtaining it. The scheme succeeded to his wish; Bruno, who took the name of *Leo IX.* believing himself indebted to Hildebrand for the pontificate, favoured him with his particular friendship and confidence; and hence originated the power of this enterprising monk, of obscure birth, but boundless ambition, who governed Rome so long, and whose zeal for

46 He invests the Normans with some territories in Apulia and Calabria.

Italy. the exaltation of the church occasioned so many troubles to Europe.

Leo soon after his elevation waited on the emperor at Worms, to crave assistance against the Norman princes, who were become the terror of Italy, and treated their subjects with great severity. Henry furnished the pope with an army; at the head of which he marched against the Normans, after having excommunicated them, accompanied by a great number of bishops and other ecclesiastics, who were all either killed or taken prisoners, the Germans and Italians being totally routed. Leo himself was led captive to Benevento, which the Normans were now masters of, and which Henry had granted to the pope in exchange for the fief of Bamberg in Germany; and the apostolic see is to this day in possession of Benevento, by virtue of that donation. The Normans, however, who had a right to the city by a prior grant, restored it, in the mean time, to the princes of Lombardy; and Leo was treated with so much respect by the conquerors, that he revoked the sentence of excommunication, and joined his sanction to the imperial investiture for the lands which they held in Apulia and Calabria.

47 Henry IV. declared king of the Romans.

Leo died soon after his release: and the emperor about the same time caused his infant son, afterwards the famous Henry IV. to be declared king of the Romans, a title still in use for the acknowledged heir of the empire. Gebehard, a German bishop, was elected pope, under the name of *Victor II.* and confirmed by the address of Hildebrand, who waited on the emperor in person for that purpose, though he disdained to consult him beforehand. Perhaps Hildebrand would not have found this task so easy, had not Henry been involved in a war with the Hungarians, who pressed him hard, but whom he obliged at last to pay a large tribute, and furnish him annually with a certain number of fighting men.

As soon as the emperor had finished this war and others to which it gave rise, he marched into Italy to inspect the conduct of his sister Beatrice, widow of Boniface marquis of Mantua, and made her prisoner. She had married Gozelo, duke of Lorrain, without the emperor's consent; and contracted her daughter Matilda, by the marquis of Mantua, to Godfrey duke of Spoleto and Tuscany, Gozelo's son by a former marriage. This formidable alliance justly alarmed Henry; he therefore attempted to dissolve it, by carrying his sister into Germany, where he died soon after his return, in the 39th year of his age, and the 16th of his reign.

The emperor, in his last journey to Italy, concluded an alliance with Contarini, doge of Venice. That republic was already rich and powerful, though it had only been enfranchised in the year 998, from the tribute of a mantle of cloth of gold, which it formerly paid, as a mark of subjection to the emperor of Constantinople. Genoa was the rival of Venice in power and in commerce, and was already in possession of the island of Corsica, which the Genoese had taken from the Saracens. These two cities engrossed at this time almost all the trade of Europe. There was no city in any respect equal to them either in France or Germany.

48 Increase of the pope's power.

Henry IV. was only five years old at his father's death. The popes made use of the respite given them by his minority, to shake off in a great measure their dependence upon the emperors. After a variety of contests about the pontificate, Nicholas II. a creature of Hildebrand's, was elected: who, among others, passed the following celebrated decree, viz. That for the future, the cardinals only should elect the pope; and that the election should afterwards be confirmed by the rest of the clergy and the people, "Saving the honour (adds he) due to our dear son Henry, now king; and who, if it please God, shall be one day emperor, according to the right which we have already conferred upon him." After this he entered into a treaty with the Norman princes above mentioned; who, though they had lately sworn to hold their possessions from the emperor, now swore to hold them from the pope; and hence arose the pope's claim of sovereignty over the kingdoms of Naples and Sicily. Italy.

Thus was the power of the German emperors in Italy greatly diminished, and that of the popes proportionally exalted; of which Henry soon had sufficient evidence. For having assumed the government into his own hands in the year 1072, being then 22 years of age, he was summoned by Alexander II. to appear before the tribunal of the holy see, on account of his loose life, and to answer the charge of having exposed the investiture of bishops to sale; at the same time that the pope excited his German subjects to rebel against him. The rebels, however, were defeated, and peace was restored to Germany; but soon after, Hildebrand above mentioned being elected to the pontificate under the name of *Gregory VII.* openly assumed the superiority over every earthly monarch whatever. He began with excommunicating every ecclesiastic who should receive a benefice from the hands of a layman, and every layman who should take upon him to confer such a benefice. Henry, instead of resenting this insolence, submitted, and wrote a penitential letter to the pope: who, upon this, condescended to take him into favour, after having severely reprimanded him for his loose life; of which the emperor now confessed himself guilty.

49 His contest with the emperor.

The quarrel between the church and the emperor was, however, soon brought to a crisis by the following accident. Solomon king of Hungary, being deposed by his brother Geysa, had fled to Henry for protection, and renewed the homage of Hungary to the empire. Gregory, who favoured Geysa, exclaimed against this act of submission; and said in a letter to Solomon, "You ought to know that the kingdom of Hungary belongs to the Roman church; and learn that you will incur the indignation of the holy see, if you do not acknowledge that you hold your dominions of the pope, and not of the emperor." Henry, though highly provoked at this declaration, thought proper to treat it with neglect; upon which Gregory resumed the dispute about investitures. The predecessors of Henry had always enjoyed the right of nominating bishops and abbots, and of giving them investiture by the cross and the ring. This right they had in common with almost all princes. The predecessors of Gregory VII. had been accustomed, on their part, to send legates to the emperors, in order to entreat their assistance, to obtain their confirmation, or desire them to come and receive the papal sanction, but for no other purpose. Gregory, however, sent

two

two legates to summon Henry to appear before him as a delinquent, because he still continued to bestow investitures, notwithstanding the apostolic decree to the contrary; adding, that if he should fail to yield obedience to the church, he must expect to be excommunicated and dethroned. Incensed at this arrogant message from one whom he considered as his vassal, Henry dismissed the legates with very little ceremony,

50 The emperor deposes the pope,

and in 1166 convoked an assembly of all the princes and dignified ecclesiastics at Worms; where, after mature deliberation, they concluded, that Gregory having usurped the chair of St Peter by indirect means, infected the church of God with a great many novelties and abuses, and deviated from his duty to his sovereign in several scandalous attempts, the emperor, by the supreme authority derived from his predecessors, ought to divest him of his dignity, and appoint another in his place. In consequence of this determination, Henry sent an ambassador to Rome, with a formal deprivation of Gregory; who, in his turn, convoked a council, at which were present 110 bishops, who unanimously agreed that the pope had just cause to depose Henry, to dissolve the oath of allegiance which the princes and states had taken in his favour, and to prohibit them from holding any correspondence with him on pain of excommunication: which was immediately fulminated against the emperor and his adherents. "In the name of Almighty God, and by our authority (said Gregory), I prohibit Henry, the son of our emperor Henry, from governing the Teutonic kingdom and Italy: I release all Christians from their oath of allegiance to him; and strictly forbid all persons from serving or attending him as king!" The circular letters written by this pontiff breathe the same spirit with his sentence of deposition. He there repeats several times, that "bishops are superior to kings, and made to judge them!" expressions alike artful and presumptuous, and calculated for bringing in all the churchmen of the world to his standard.

51 and he the emperor;

Gregory knew well what consequences would follow the thunder of the church. The German bishops came immediately over to his party, and drew along with them many of the nobles: the flame of civil war still lay smothering, and a bull properly directed was sufficient to set it in a blaze. The Saxons, Henry's old enemies, made use of the papal displeasure as a pretence for rebelling against him. Even Guelfe, to whom the emperor had given the duchy of Bavaria, supported the malcontents with that power which he owed to his sovereign's bounty: nay, those very princes and prelates who had assisted in deposing Gregory, gave up their monarch to be tried by the pope; and his holiness was solicited to come to Augsburg for that purpose.

Willing to prevent this odious trial at Augsburg, Henry took the unaccountable resolution of suddenly passing the Alps at Tirol, accompanied only by a few domestics, to ask absolution of Pope Gregory his oppressor; who was then in Canoza, on the Apennine mountains, a fortress belonging to the countess or

52 who is at last obliged to submit.

duchess Matilda above mentioned. At the gates of this place the emperor presented himself as a humble penitent. He alone was admitted within the outer court; where, being stripped of his robes, and wrapped in sackcloth, he was obliged to remain three days, in the month of January, bare-footed and fasting, before he was permitted to kiss the feet of his holiness; who all that time was shut up with the devout Matilda, whose spiritual director he had long been, and, as some say, her gallant. But be that as it may, her attachment to Gregory, and her hatred to the Germans, was so great, that she made over all her estates to the apostolic see; and this donation is the true cause of all the wars which since that period have raged between the emperors and the popes. She possessed in her own right great part of Tuscany, Mantua, Parma, Reggio, Placentia, Ferrara, Modena, Verona, and almost the whole of what is now called the *patrimony of St Peter*, from Viterbo to Orvieto; together with part of Umbria, Spoleto, and the Marche of Ancona.

The emperor was at length permitted to throw himself at the pontiff's feet; who condescended to grant him absolution, after he had sworn obedience to him in all things, and promised to submit to his solemn decision at Augsburg: so that Henry got nothing but disgrace by his journey; while Gregory, elated by his triumph, and now looking upon himself (not altogether without reason) as the lord and master of all the crowned heads in Christendom, said in several of his letters, that it was his duty "to pull down the pride of kings."

This extraordinary accommodation gave much disgust to the princes of Italy. They never could forgive the insolence of the pope, nor the abject humility of the emperor. Happily, however, for Henry, their indignation at Gregory's arrogance overbalanced their detestation of his meanness. He took advantage of this temper; and by a change of fortune, hitherto unknown to the German emperors, he found a strong party in Italy, when abandoned in Germany. All Lombardy took up arms against the pope, while he was raising all Germany against the emperor. Gregory, on the other hand, made use of every art to get another emperor elected in Germany: and Henry, on his part, left nothing undone to persuade the Italians to elect another pope. The Germans chose Rodolph, duke of Suabia, who was solemnly crowned at Mentz; and Gregory, hesitating on this occasion, behaved truly like the supreme judge of kings. He had deposed Henry, but still it was in his power to pardon that prince: he therefore affected to be displeased that Rodolph was consecrated without his order; and declared, that he would acknowledge as emperor and king of Germany, him of the two competitors who should be most submissive to the holy see.

53 Rodolph chosen emperor of Germany.

Henry, however, trusting more to the valour of his troops than to the generosity of the pope, set out immediately for Germany, where he defeated his enemies in several engagements: and Gregory, seeing no hopes of submission, thundered out a second sentence of excommunication against him, confirming at the same time the election of Rodolph, to whom he sent a golden crown, on which the following well known verse, equally haughty and puerile, was engraved.

Petra dedit Petro, Petrus diadema Rodolpho.

This donation was also accompanied with a most enthusiastic anathema against Henry. After depriving him of *strength and combat*, and condemning him *never to be victorious*, it concludes with the following remarkable

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markable apostrophe to St Peter and St Paul: "Make all men sensible, that as you can bind and loose every thing in heaven, you can also upon earth take from or give to every one, according to his deserts, empires, kingdoms, principalities—let the kings and the princes of the age then instantly feel your power, that they may not dare to despise the orders of your church; let your justice be so speedily executed upon Henry, that nobody may doubt but he falls by your means, and not by chance."

In order to avoid the effects of this second excommunication, Henry assembled at Brixen, in the county of Tirol, about 20 German bishops: who, acting also for the bishops of Lombardy, unanimously resolved, that the pope, instead of having power over the emperor, owed him obedience and allegiance; and that Gregory VII. having rendered himself unworthy of the papal chair by his conduct and rebellion, ought to be deposed from a dignity he so little deserved. They accordingly degraded Hildebrand; and elected in his room Guibert, archbishop of Ravenna, a person of undoubted merit, who took the name of *Clement III.* Henry promised to put the new pope in possession of Rome: but he was obliged, in the mean time, to employ all his forces against his rival Rodolph, who had reassembled a large body of troops in Saxony. The two armies met near Mersburg, and both fought with great fury; but the fortune of the day seemed inclined to Rodolph, when his hand was cut off by the famous Godfrey of Bouillon, then in the service of Henry, and afterwards renowned for his conquest of Jerusalem. Discouraged by the misfortune of their chief, the rebels immediately gave way; and Rodolph perceiving his end approaching, ordered the hand that was cut off to be brought him, and made a speech to his officers on the occasion, which could not fail to have an influence on the emperor's affairs. "Behold (said he) the hand with which I took the oath of allegiance to Henry; and which oath, at the instigation of Rome, I have violated, in perfidiously aspiring at an honour that was not my due."

54 Defeated and killed.

Thus delivered from this formidable antagonist, Henry soon dispersed the rest of his enemies in Germany, and set out for Italy in order to settle Clement in the papal chair. But the gates of Rome being shut against him, he was obliged to attack it in form. The siege continued upwards of two years; Henry during that time being obliged to quell some insurrections in Germany. The city was at length carried by assault, and with difficulty saved from being pillaged; but Gregory was not taken: he retired into the castle of St Angelo, and thence defied and excommunicated the conqueror. The new pope was, however, consecrated with the usual ceremonies; and expressed his gratitude by crowning Henry, with the concurrence of the Roman senate and people. Mean while the siege of St Angelo was going on; but the emperor being called about some affairs into Lombardy, Robert Guiscard took advantage of his absence to release Gregory, who died soon after at Salerno. His last words, borrowed from the Scripture, were worthy of the greatest saint: "I have loved justice, and hated iniquity; therefore I die in exile!"

55 Rome taken by Henry IV.

Henry, however, did not enjoy all the advantages which might have been expected from the death of Gregory. The subsequent popes trode in the paths of their predecessor. In 1101, Pascal II. excited young Henry to rebel against his father. The emperor did all in his power to dissuade him from proceeding to extremities, but in vain. The young prince persisted in his rebellious intentions; and having by feigned submissions prevailed on the emperor to disband his army, he treacherously seized and confined him. Henry, however, found means to escape from his confinement, and attempted to engage all the sovereigns of Europe in his quarrel; but before any thing effectual could be done, he died at Liege in the year 1106.

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56 Dispute between the pope and Henry V.

The dispute about investitures was not terminated by the deposition and death of Henry IV. His son Henry V. pursued the very same conduct for which he had deposed his father. Pascal opposed him with violence; upon which Henry gave him an invitation into Germany, to end the dispute in an amicable manner. Pascal did not think proper to accept of this invitation; but put himself under the protection of Philip I. king of France, who undertook to mediate between the contending parties. His mediation, however, proved ineffectual, and Henry was prevented by the wars in Hungary and Poland from paying any further attention to the affair of investitures. At last, having settled his affairs in Germany, he took a resolution of going to Rome, in order to settle the dispute personally with the pope. To give his arguments the greater weight, however, he marched at the head of an army of 80,000 men. Pascal received him with great appearance of friendship, but would not renounce the claim of investitures; and Henry, finding himself deceived in his expectations, ordered the pope to be seized. The consul put the citizens in arms to defend the pope, and a battle was fought within the walls of Rome. The slaughter was so great, that the waters of the Tiber were tinged with blood. The Romans were defeated, and Pascal was taken prisoner. The latter renounced his right of investiture; solemnly swore never to resume it, and broke his oath as soon as Henry was gone, by fulminating the sentence of excommunication against him. In 1114 died the countess Matilda, who had bequeathed all her dominions to the pope, as we have already observed; but Henry thinking himself the only lawful heir, alleged, that it was not in Matilda's power to alienate her estates, which depended immediately on the empire. He therefore set out for Lombardy, and sent ambassadors to the pope, beseeching him to revoke the sentence of excommunication above mentioned. Pascal, however, would not even favour the ambassadors with an audience; but dreading the approach of Henry himself, he took refuge among the Norman princes in Apulia. Henry arrived at Rome in 1117; but being soon after obliged to leave it in order to settle some affairs in Tuscany, the pope returned to Rome, but died in a few days. On the third day after his decease, Cardinal Cajetan was elected his successor, without the privity of the emperor, under the name of *Gelasius II.* The new pope was instantly deposed by Henry; who set up the archbishop of Prague, under the name of *Gregory VIII.* Gelasius, though supported by the Norman princes, was obliged to take refuge

Italy. refuge in France, where he died; and the archbishop of Vienna was elected by the cardinals then present under the name of *Calixtus II.*

The new pope attempted an accommodation with Henry; which not succeeding, he excommunicated the emperor, the antipope, and his adherents. He next set out for Rome, where he was honourably received; and Gregory VIII. was forced to retire to Sutri, a strong town garrisoned by the emperor's troops. Here he was besieged by Calixtus and the Norman princes. The city was soon taken, and Gregory thrown into prison by his competitor; but at last, the states of the empire being quite wearied out with such a long quarrel, unanimously supplicated Henry for peace. He referred himself entirely to their decision; and a diet being assembled at Wurtzburg, it was decreed that an embassy should be immediately sent to the pope, desiring that he would convoke a general council at Rome, by which all disputes might be determined. This was accordingly done, and the affair of investitures at length regulated in the following manner, viz. That the emperor should leave the communities and chapters at liberty to fill up their own vacancies, without bestowing investitures with the cross and ring; that he should restore all that he had unjustly taken from the church; that all elections should be made in a canonical manner, in presence of the emperor or his commissaries: and whatever disputes might happen should be referred to the decision of the emperor, assisted by the metropolitan and his suffragans; that the person elected should receive from the emperor the investiture of the fiefs and secular rights, not with the cross, but with the sceptre; and should pay allegiance to him for these rights only.

57 Determination of the affair of investitures.

After the death of Henry, the usual disorders took place in Italy; during which, Roger duke of Apulia conquered the island of Sicily, and assumed the right of creating popes, of whom there were two at that time, viz. Innocent II. and Anacletus. Roger drove out the former, and Lothario emperor of Germany the latter, forcing Roger himself at the same time to retire into Sicily. The emperor then conducted Innocent back to Rome in triumph; and having subdued all Apulia, Calabria, and the rest of Roger's Italian dominions, erected them into a principality, and bestowed it, with the title of *duke*, upon Renaud a German prince, and one of his own relations.

In the reign of Conrad III. who succeeded Lothario, the celebrated factions called the *Guelphs* and *Gibelines* *, arose, which for many years deluged the cities of Italy with blood. They took their origin during a civil war in Germany, in which the enemies of the emperor were styled *Guelphs*, and his friends *Gibelines*; and these names were quickly received in Italy as well as other parts of the emperor's dominions. Of this civil war many of the cities in Italy took the advantage to set up for themselves; neither was it in the power of Conrad, who during his whole reign was employed in unsuccessful crusades, to reduce them; but in 1158 Frederic Barbarossa, successor to Conrad, entered Italy at the head of a very numerous and well disciplined army. His army was divided into several columns, for the conveniency of entering the country by as many different routes. Having passed the Alps, he reduced the town of Brescia; where he made several salutary regulations for the preservation of good order and military discipline. Continuing to advance, he besieged Milan, which surrendered at discretion. He was crowned king of Lombardy at Monza; and having made himself master of all the other cities of that country, he ordered a minute inquiry to be set on foot concerning the rights of the empire, and exacted homage of all those who held of it, without excepting even the bishops. Grievances were redressed; magistracies reformed; the rights of regality discussed and ascertained; new laws enacted for the maintenance of public tranquillity and the encouragement of learning, which now began to revive in the school of Bologna; and, above all, subvassals were not only prohibited from alienating their lands, but also compelled, in their oath to their lords paramount, to except the emperor nominally, when they swore to serve and assist them against all their enemies. The pope took umbrage at this behaviour towards the ecclesiastics: but Frederic justified what he had done, telling his deputies it was but reasonable they should do homage for the fiefs they possessed; as Jesus Christ himself, though the lord of all the sovereigns upon earth, had deigned to pay for himself and St Peter the tribute which was due to Cæsar.

* See Guelphs and Gibelines.

58 Italy invaded by Frederic Barbarossa.

Frederic having sent commissaries to superintend the election of new magistrates at Milan, the inhabitants were so much provoked at this infringement of their old privileges, that they insulted the imperialists, revolted, and refused to appear before the emperor's tribunal. This he highly resented, and resolved to chastise them severely: for which purpose he sent for a reinforcement from Germany, which soon after arrived with the empress, while he himself ravaged Liguria, declared the Milanese rebels to the empire, and plundered and burnt the city of Crema which was in alliance with that of Milan.

In the mean time, Pope Adrian IV. dying, two opposite factions elected two persons known by the names of *Victor II.* and *Alexander III.* The emperor's allies necessarily acknowledged the pope chosen by him; and those princes who were jealous of the emperor, acknowledged the other. Victor II. Frederic's pope, had Germany, Bohemia, and one half of Italy on his side; while the rest submitted to Alexander III. The emperor took a severe revenge on his enemies; Milan was razed from the foundation, and salt strewed on its ruins; Brescia and Placentia were dismantled; and the other cities which had taken part with them were deprived of their privileges. Alexander III. however, who had excited the revolt, returned to Rome after the death of his rival; and at his return the civil war was renewed. The emperor caused another pope, and after his death a third, to be elected. Alexander then fled to France, the common asylum of every pope who was oppressed by the emperors; but the flames of civil discord which he had raised continued daily to spread. In 1168, the cities of Italy, supported by the Greek emperor and the king of Sicily, entered into an association for the defence of their liberties; and the pope's party at length prevailed. In 1176, the imperial army, worn out by fatigues and diseases, was defeated by the confederates, and Frederic himself narrowly escaped. About the same time, he was defeated at sea by the Venetians; and

59 He takes and destroys Milan, &c.

Italy. and his eldest son Henry, who commanded his fleet, fell into the hands of the enemy. The pope, in honour of this victory, sailed out into the open sea, accompanied by the whole senate; and after having pronounced a thousand benedictions on that element, threw into it a ring as a mark of his gratitude and affection. Hence the origin of that ceremony which is annually performed by the Venetians, under the notion of espousing the Adriatic. These misfortunes disposed the emperor towards a reconciliation with the pope: but, reckoning it below his dignity to made an advance, he rallied his troops, and exerted himself with so much vigour in repairing his loss, that the confederates were defeated in a battle; after which he made proposals of peace, which were now joyfully accepted, and Venice was the place appointed for a reconciliation. The emperor, the pope, and a great many princes and cardinals, attended; and there the emperor, in 1177, put an end to the dispute, by acknowledging the pope, kissing his feet, and holding his stirrup while he mounted his mule. This reconciliation was attended with the submission of all the towns of Italy which had entered into an association for their mutual defence. They obtained a general pardon, and were left at liberty to use their own laws and forms of government, but were obliged to take the oath of allegiance to the emperor as their superior lord. Calixtus, the anti-pope, finding himself abandoned by the emperor in consequence of this treaty, made also his submission to Alexander, who received him with great humanity; and in order to prevent for the future those disturbances which had so often attended the elections of the popes, he called a general council, in which it was decreed, that no pope should be deemed duly elected without having two-thirds of the votes in his favour.

60 Submits to the pope.

The affairs of Italy being thus settled, Barbarossa returned to Germany; and having quieted some disturbances which had arisen during his absence in Italy, at last undertook an expedition into the Holy Land; where having performed great exploits, he was drowned as he was swimming in the river Cydnus, in the year 1196. He was succeeded by his son Henry VI. who at the same time became heir to the dominions of Sicily by the right of his wife, daughter of William king of that country. After settling the affairs of Germany, the new emperor marched with an army into Italy, in order to be crowned by the pope, and to recover the succession of Sicily, which was usurped by Tancred his wife's natural brother. For this purpose, he endeavoured to conciliate the affections of the Lombards, by enlarging the privileges of Genoa, Pisa, and other cities, in his way to Rome; where the ceremony of the coronation was performed by Celestin III. on the day after Easter in the year 1191. The pope, then in the 86th year of his age, had no sooner placed the crown upon Henry's head than he kicked it off again, as a testimony of the power residing in the sovereign pontiff to make and unmake emperors at his pleasure.

61 Frederic succeeded by Henry VI.

The coronation being over, Henry prepared for the conquest of Naples and Sicily; but in this he was opposed by the pope: for though Celestin considered Tancred as an usurper, and desired to see him deprived of the crown of Sicily, which he claimed as a fief of the see, yet he was much more averse to the emperor's being put in possession of it, as that would render him too powerful in Italy for the interest of the church. Henry, however, without paying any regard to the threats and remonstrances of his holiness, took almost all the towns of Campania, Calabria, and Apulia; invested the city of Naples; and sent for the Genoese fleet, which he had before engaged, to come and form the blockade by sea: but before its arrival, he was obliged to raise the siege, in consequence of a dreadful mortality among his troops: and all future attempts upon Sicily were ineffectual during the life of Tancred.

62 His perfidy and cruelty.

The whole reign of Henry from this time seems to have been a continued train of the most abominable perfidies and cruelties. Having treacherously seized and imprisoned Richard I. of ENGLAND, in the manner related under that article, N° 128—130, he had no sooner received the ransom paid for his royal captive, than he made new preparations for the conquest of Sicily. As Tancred died about this time, the emperor with the assistance of the Genoese, accomplished his purpose. The queen-dowager surrendered Salerno, and her right to the crown, on condition that her son William should possess the principality of Tarentum; but Henry no sooner found himself master of the place than he ordered the infant king to be castrated, to have his eyes put out, and to be confined in a dungeon. The royal treasure was transported to Germany, and the queen and her daughter confined in a convent.

In the mean time, the empress, though near the age of 50, was delivered of a son, named *Frederic*; and Henry soon after assembled a diet of the princes of Germany, to whom he explained his intentions of rendering the imperial crown hereditary, in order to prevent those disturbances which usually attended the election of emperors. A decree passed for this purpose; and Frederic, yet in his cradle, was declared king of the Romans. Soon after, the emperor being solicited to undertake a crusade, obeyed the injunctions of the pope, but in such a manner as to make it turn out to his own advantage. He convoked a general diet at Worms, where he solemnly declared his resolution of employing his whole power, and even of hazarding his life, for the accomplishment of so holy an enterprise; and he expatiated upon the subject with so much eloquence, that almost the whole assembly took the cross. Nay, such multitudes from all the provinces of the empire enlisted themselves, that Henry divided them into three large armies; one of which, under the command of the bishop of Mentz, took the route of Hungary, where it was joined by Margaret, queen of that country, who entered herself in this pious expedition, and actually ended her days in Palestine: the second was assembled in Lower Saxony, and embarked in a fleet furnished by the inhabitants of Lubec, Hamburg, Holstein, and Friezland: and the emperor in person conducted the third into Italy, in order to take vengeance on the Normans in Naples and Sicily who had risen against his government.

The rebels were humbled; and their chiefs were condemned to perish by the most excruciating tortures. One Jornandi, of the house of the Norman princes, was tied naked on a chair of red-hot iron, and crowned

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crowned with a circle of the same burning metal, which was nailed to his head. The empress, shocked at such cruelty, renounced her faith to her husband, and encouraged her countrymen tn recover their liberties. Resolution sprung from despair. The inhabitants betook themselves to arms; the empress Constantia headed them: and Henry, having dismissed his troops, no longer thought necessary to his bloudy purposes, and sent them to pursue their expedition to the Holy Land, was obliged to submit to his wife, and to the conditions which she was pleased to impose on him in favour of the Sicilians. He died at Messina in 1197, soon after this treaty; and, as was supposed, of poison administered by the empress.

63 Disturbances in the beginning of the reign of Frederic II.

The emperor's son Frederic had already been declared king of the Romans, and consequently became emperor on the death of his father; but as Frederic II. was yet a minor, the administration was committed to his uncle the duke of Suabia, both by the will of Henry and by an assembly of the German princes. Other princes, however, incensed to see an elective empire become hereditary, held a new diet at Cologne, and chose Otho duke of Brunswick, snn of Henry tbe Lion. Frederic's title was confirmed in a third assembly at Arnsburg; and his uncle, Philip duke of Suabia, was elected king of the Romans, in nrder to give greater weight to his administration. These two elections divided the empire intn two powerful factions, and invnlved all Germany in ruin and desolation. Innocent III. who had succeeded Celestin in the papal chair, threw himself into the scale of Otho, and excommunicated Philip and all his adherents. This able and ambitious pontiff was a swnru enemy of the house of Suabia; not from any persnnal animosity, but out of a principle of policy. That house had long been terrible to the popes, by its continual possession of the imperial crnwn; and the accession of the kingdom of Naples and Sicily made it still more to be dreaded: Innocent, therefore, gladly seized the present favourable opportunity for divesting it of the empire, by supporting the election of Otho, and sowing divisions among the Suabian party. Otho was also patrnnized by his uncle, the king of England; which naturally inclined the king of France tn the side nf his rival. Faction clashed with faction; friendship with interest; caprice, ambition, nr resentment, gave the sway; and nothing was beheld on all hands but the horrors and the miseries of civil wars.

Meanwhile, the empress Constantia remained in Sicily, where all was peace, as regent and guardian for her infant son Frederic II. who had been crowned king nf that island, with the consent nf Pope Celestin III. But she also had her troubles. A new investiture from the holy see being necessary, on the death nf Celestin, Innocent III. his successor, took advantage of the critical situation of affairs for aggrandizing the papacy, at tbe expence of the kings of Sicily. They possessed, as has been already observed, the privilege of filling up vacant benefices, and of judging all ecclesiastical causes in the last appeal: they were really popes in their own island, thnugh vassals of his holiness. Innocent pretended that these powers had been surreptitiously nbtained; and demanded, that Constantia should renounce them in the name nf her son, and dn liege, pure, and simple homage for Sicily. But before any thing was settled relative to this affair, the empress died, leaving the regency of the kiogdom to the pope; so that he was enabled to prescribe what conditions he thought prnper to young Frederic. The troubles of Germany still continued; and the pope redoubled his efforts to detach the princes and prelates from the canse of Philip, notwithstanding the remonstrances of the king of France, to whom he proudly replied, "Either Philip must lose the empire, or I the papacy." But all these dissensions and troubles in Europe did not prevent the formation of another crusade, or expedition into Asia, for the recovery of the Holy Land. Those who took the cross were principally French and Germans: Baldwin, count of Flanders, was their commander; and the Venetians, as greedy of wealth and power as the ancient Carthaginians, furnished them with ships, for which they took care to be amply paid both in money and territory. The Christian city of Zara, in Dalmatia, had withdrawn itself from the government of the republic: the army of the cross undertook to reduce it to obedience; and it was besieged and taken, notwithstanding the threats and excommunication of the pnpe.

While the crusaders were spreading desolation through the east, Philip and Othn were in like manner desolating the west. At length Philip prevailed; and Otho, obliged to abandon Germany, took refuge in England. Philip, elated with success, confirmed his election by a second coronation, and proposed an accommodation with the pope, as the means of finally establishing his throne; but before it could be brought about, he fell a sacrifice to private revenge, being assassinated by the count Palatine of Bavaria, whose daughter he had promised to marry, apd afterwards rejected. Otho returned to Germany on the death of Philip; married that prince's daughter; and was crowned at Rome by Pnpe Innocent III. after yielding to the holy see the long-disputed inheritance of the countess Matilda, and confirming the rights aod privileges of the Italian cities. But these concessions, as far at least as regarded the pope, were only a sacrifice to present policy: Otho, therefore, no snoner found himself in a condition to act offensively, than he resumed his grant; and in 1210 not nnly recovered the possessions of the empire, but made hostile incursions into Apulia, ravaging the dominions of young Frederic king of Naples and Sicily, who was under the protection nf the holy see. For this reason he was excommunicated by Innocent; and Frederic, now 17 years of age, was elected empernr by a diet of the German princes. Otho, however, on his return to Germany, finding his party still considerable, and not doubting but he should be able to humble his rival by means of his superior force, entered into an alliance with his uncle John king of England, against Philip Augustus king of France, A. D. 1213. The unfortunate battle of Bnuvines, where the confederates were defeated, completed the fate of Otho. He attempted to retreat into Germany, but was prevented by young Frederic; who had marched into the empire at the head of a powerful army, and was everywhere received with open arms. Thus abandoned by all the princes of Germany, and altogether without resource, Otho retired to Brunswick, where he lived four years as a private man, dedicating his time to the duties of religion.

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Frederic II. being now universally acknowledged emperor, was crowned at Aix-la-Chapelle in 1215, with great magnificence; when, in order to preserve the favour of the pope, he added to the other solemnities of his coronation a vow to go in person to the Holy Land.

The bad success of this expedition hath been already taken notice of under the article of CROISADE. The emperor had, on various pretences, refused to go into the east; and in 1225, the pope, incensed at the loss of Damietta, wrote a severe letter to him, taxing him with having sacrificed the interests of Christianity by delaying so long the performance of his vow, and threatening him with immediate excommunication if he did not instantly depart with an army to Asia. Frederic, exasperated at these reproaches, renounced all correspondence with the court of Rome; renewed his ecclesiastical jurisdiction in Sicily; filled up vacant sees and benefices; and expelled some bishops, who were creatures of the pope, on pretence of their being concerned in practices against the state.

64 His quarrel with the pope.

The pope at first threatened the emperor with the thunder of the church, for presuming to lift up his hand against the sanctuary; but finding Frederic not to be intimidated, he became sensible of his own imprudence in wantonly incurring the resentment of so powerful a prince, and thought proper to soothe him by submissive apologies and gentle exhortations. They were accordingly reconciled, and conferred together at Veroli in 1226; where the emperor, as a proof of his sincere attachment to the church, published some very severe edicts against heresy, which seem to have authorised the tribunal of the inquisition. A solemn assembly was afterwards held at Ferentino, where both the pope and the emperor were present, together with John de Brienne, titular king of Jerusalem, who was come to Europe to demand succours against the soldan of Egypt. John had an only daughter named *Yolanda*, whom he proposed as a wife to the emperor, with the kingdom of Jerusalem as her dower, on condition that Frederic should within two years perform the vow he had made to lead an army into the Holy Land. Frederic married her on these terms, because he chose to please the pope; and since that time the kings of Sicily have taken the title of *king of Jerusalem*. But the emperor was in no hurry to go and conquer his wife's portion, having business of more importance on his hands at home. The chief cities of Lombardy had entered into a secret league, with a view to renounce his authority. He convoked a diet at Cremona, where all the German and Italian noblemen were summoned to attend. A variety of subjects were there discussed; but nothing of consequence was settled. An accommodation, however, was soon after brought about by the mediation of the pope; who, as umpire of the dispute, decreed, that the emperor should lay aside his resentment against the confederate towns, and that the towns should furnish and maintain 400 knights for the relief of the Holy Land.

Peace being thus concluded, Honorius reminded the emperor of his vow; Frederic promised compliance: but his holiness died before he could see the execution of a project which he seemed to have so much at heart. He was succeeded in the papal chair by Gregory IX. brother of Innocent III.; who, pursuing the same line of policy, urged the departure of Frederic for the Holy Land; and finding the emperor still backward, declared him incapable of the imperial dignity, as having incurred the sentence of excommunication. Frederic, incensed at such insolence, ravaged the patrimony of St Peter; and was actually excommunicated. The animosity between the Guelphs and Gibelines revived; the pope was obliged to quit Rome; and Italy became a scene of war and desolation, or rather of an hundred civil wars; which, by inflaming the minds and exciting the resentment of the Italian princes, accustomed them but too much to the horrid practices of poisoning and assassination.

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During these transactions, Frederic, in order to remove the cause of all these troubles, and gratify the prejudices of a superstitious age, by the advice of his friends resolved to perform his vow: and he accordingly embarked for the Holy Land, leaving the affairs of Italy to the management of Renaldo duke of Spoleto. The pope prohibited his departure before he should be absolved from the censures of the church; but Frederic went in contempt of the church, and succeeded better than any person who had gone before him. He did not indeed desolate Asia, and gratify the barbarous zeal of the times by spilling the blood of infidels; but he concluded a treaty with Miliden, soldan of Egypt, and master of Syria, by which the end of his expedition seemed fully answered. The soldan ceded to him Jerusalem and its territory as far as Joppa; Bethlehem, Nazareth, and all the country between Jerusalem and Ptolemais; Tyre, Sidon, and the neighbouring territories: in return for which, the emperor granted the Saracens a truce of ten years; and in 1230 prudently returned to Italy, where his presence was much wanted.

65 His expedition to the Holy Land.

Frederic's reign, after his return from the east, was one continued quarrel with the popes. The cities of Lombardy had revolted during his absence, at the instigation of Gregory IX.; and before they could be reduced, the same pontiff excited the emperor's son Henry, who had been elected king of the Romans, to rebel against his father. The rebellion was suppressed, the prince was confined, and the emperor obtained a complete victory over the associated towns. But his troubles were not yet ended. The pope excommunicated him anew, and sent a bull filled with the most absurd and ridiculous language, into Germany, in order to sow divisions between Frederic and the princes of the empire.

Frederic retorted in the same strain, in his apology to the princes of Germany, calling Gregory *the Great Dragon*, the *Antichrist*, &c. The emperor's apology was sustained in Germany; and finding he had nothing to fear from that quarter, he resolved to take ample vengeance on the pope and his associates. For that purpose he marched to Rome, where he thought his party was strong enough to procure him admission; but this favourite scheme was defeated by the activity of Gregory, who ordered a crusade to be preached against the emperor, as an enemy of the Christian faith; a step which incensed Frederic so much, that he ordered all his prisoners who wore the cross to be exposed to the most cruel tortures. The two factions of the Guelphs and Gibelines continued to rage with greater violence than ever, involving cities, districts, and

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and even private families, in troubles, divisions, and civil butchery; no quarter being given on either side. Meanwhile Gregory IX. died, and was succeeded in the see of Rome by Celestin IV. and afterwards by Innocent IV. formerly Cardinal Fiesque, who had always expressed the greatest regard for the emperor and his interest. Frederic was accordingly congratulated upon this occasion: but having more penetration than those about him, he sagely replied, "I see little reason to rejoice; the cardinal was my friend, but the pope will be my enemy." Innocent soon proved the justice of this conjecture. He attempted to negotiate a peace for Italy; but not being able to obtain from Frederic his exorbitant demands, and in fear for the safety of his own person, he fled into France, assembled a general council at Lyons, and in 1245 deposed the emperor.

65 Is deposed by the pope.

Conrad, the emperor's second son, had already been declared king of the Romans, on the death of his brother Henry, which soon followed his confinement; but the empire being now declared vacant by the pope, the German bishops (for none of the princes were present), at the instigation of his holiness, proceeded to the election of a new emperor; and they chose Henry landgrave of Thuringia, who was styled in derision, *The king of priests*. Innocent now renewed the crusade against Frederic. It was proclaimed by the preaching friars, since called *Dominicans*, and the minor friars, known by the name of *Cordeliers* or *Franciscans*. The pope, however, did not confine himself to these measures only, but engaged in conspiracies against the life of an emperor who had dared to resist the decree of a council, and oppose the whole body of the monks and zealots. Frederic's life was several times in danger from plots, poisonings, and assassinations; which induced him, it is said, to make choice of Mahometan guards, who, he was certain, would not be under the influence of the prevailing superstition.

About this time the landgrave of Thuringia dying, the same prelates who had taken the liberty of creating one emperor made another; namely, William count of Holland, a young nobleman of 20 years of age, who bore the same contemptuous title with his predecessor. Fortune, which had hitherto favoured Frederic, seemed now to desert him. He was defeated before Parma, which he had long besieged; and to complete his misfortune, he soon after learned, that his natural son Entius, whom he had made king of Sardinia, was worsted and taken prisoner by the Bolognese.

In this extremity Frederic retired to his kingdom of Naples, in order to recruit his army; and there died of a fever in the year 1250. After his death, the affairs of Germany fell into the utmost confusion, and Italy continued long in the same distracted state in which he had left it. The clergy took arms against the laity; the weak were oppressed by the strong; and all laws divine and human were disregarded. After the death of Frederic's son Conrad, who had assumed the imperial dignity as successor to his father, and the death of his competitor William of Holland, a variety of candidates appeared for the empire, and several were elected by different factions; among whom was Richard earl of Cornwall, brother to Henry II. king of England: but no emperor was properly acknowledged till the year 1273, when Rodolph, count of Hapsburg, was unanimously raised to the vacant throne. During the interregnum which preceded the election of Rodolph, Denmark, Holland, and Hungary, entirely freed themselves from the homage they were wont to pay to the empire; and much about the same time several German cities erected a municipal form of government, which still continues. Lubec, Cologne, Brunswic, and Dantzic, united for their mutual defence against the encroachments of the great lords, by a famous association, called the *Hanseatic league;* and these towns were afterwards joined by 80 others, belonging to different states, which formed a kind of commercial republic. Italy also, during this period, assumed a new plan of government. That freedom for which the cities of Lombardy had so long struggled, was confirmed to them for a sum of money: they were emancipated by the fruits of their industry. Sicily likewise changed its government and its prince; of which revolution a particular account is given under the article SICILY.

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67 Decline of the power of the German emperor.

From the time of Frederic II. we may date the ruin of the German power in Italy. The Florentines, the Pisans, the Genoese, the Luccans, &c. became independent, and could not again be reduced. The power of the emperor, in short, was in a manner annihilated, when Henry VII. undertook to restore it in the beginning of the 14th century. For this purpose a diet was held at Francfort, where proper supplies being granted for the emperor's journey, well known by the name of the *Roman expedition*, he set out for Italy, accompanied by the dukes of Austria and Bavaria, the archbishop of Triers, the bishop of Liege, the counts of Savoy and Flanders, and other noblemen, together with the militia of all the imperial towns. Italy was still divided by the factions of the Guelphs and Gibelines, who butchered one another without humanity or remorse. But their contest was no longer the same: it was not now a struggle between the empire and the priesthood, but between faction and faction, inflamed by mutual jealousies and animosities. Pope Clement V. had been obliged to leave Rome, which was in the anarchy of popular government. The Colonnas, the Ursini, and the Roman barons, divided the city; and this division was the cause of a long abode of the popes in France, so that Rome seemed equally lost to the popes and the emperors. Sicily was in the possession of the house of Arragon, in consequence of the famous massacre called the *Sicilian vespers*, which delivered that island from the tyranny of the French*. Carobert, king of Hungary, disputed the kingdom of Naples with his uncle Robert, son of Charles II. of the house of Anjou. The house of Este had established itself at Ferrara; and the Venetians wanted to make themselves masters of that country. The old league of the Italian cities no longer subsisted. It had been formed with no other view than to oppose the emperors: and since they had neglected Italy, the cities were wholly employed in aggrandizing themselves, at the expence of each other. The Florentines and the Genoese made war upon the republic of Pisa. Every city was also divided into factions within itself. In the midst of these troubles Henry VII. appeared in Italy in the year 1311, and caused himself to be crowned king of Lombardy at Milan. But the Guelphs had concealed the old iron crown of the Lombard kings, as

65 Expedition of Henry VII. into Italy.

* See Sicily.

Italy. if the right of reigning were attached to a small circlet of metal. Henry ordered a new crown to be made, with which the ceremony of inauguration was performed.

Cremona was the first place that ventured to oppose the emperor. He reduced it by force, and laid it under heavy contributions. Parma, Vicenza, and Placentia, made peace with him on reasonable conditions. Padua paid 100,000 crowns, and received an imperial officer as governor. The Venetians presented Henry with a large sum of money, an imperial crown of gold enriched with diamonds, and a chain of very curious workmanship. Brescia made a desperate resistance, and sustained a very severe siege; in the course of which the emperor's brother was slain, and his army diminished to such a degree, that the inhabitants marched out under the command of their prefect Thibault de Drussati, and gave him battle: but they were repulsed with great loss, after an obstinate engagement; and at last obliged to submit, and their city was dismantled. From Brescia Henry marched to Genoa, where he was received with expressions of joy, and splendidly entertained. He next proceeded to Rome; where, after much bloodshed, he received the imperial crown from the hands of the cardinals. Clement V. who had originally invited Henry into Italy, growing jealous of his success, had leagued with Robert king of Naples and the Ursini faction, to oppose his entrance into Rome. He entered it in spite of them by the assistance of the Colonnas. Now master of that ancient city, Henry appointed it a governor; and ordered, that all the cities and states of Italy should pay him an annual tribute. In this order he comprehended the kingdom of Naples, to which he was going to make good his claim of superiority by arms, when he died at Benevento in 1313, as is commonly supposed, of poison given him by a Dominican friar, in the consecrated wine of the sacrament.

69 State of Italy since that time.

The efforts of Henry VII. were unable to restore the imperial power in Italy. From this time the authority of the emperor in that country consisted in a great measure in the conveniency which the Gibelines found in opposing their enemies under the sanction of his name. The power of the pope was much of the same nature. He was less regarded in Italy than in any other country in Christendom. There was indeed a great party who called themselves *Guelphs;* but they affected this distinction only to keep themselves independent of the imperialists; and the states and princes who called themselves *Guelphs* paid little more acknowledgment to his holiness than sheltering themselves under his name and authority. The most desperate wars were carried on by the different cities against each other; and in these wars Castruccio Castraccani, and Sir John Hawkwood an Englishman, are celebrated as heroes. A detail of these transactions would furnish materials for many volumes; and after all seems to be but of little importance, since nothing material was effected by the utmost efforts of valour, and the belligerent states were commonly obliged to make peace without any advantage on either side. By degrees, however, this martial spirit subsided; and in the year 1492, the Italians were so little capable of resisting an enemy, that Charles VIII. of France conquered the whole kingdom of Naples in six weeks, and might easily have subdued the whole country had it not been for his own imprudence. Another attempt on Italy was made by Louis XII. and a third by Francis I. as related under the article FRANCE. In the reigns of Louis XIII. and XIV. an obstinate war was carried on between the French and Spaniards, in which the Italian states bore a very considerable share. The war concluded in 1660, with very little advantage to the French, who have been always unsuccessful in their Italian wars. The like bad success attended them in that part of the world, in the war which commenced between Britain and Spain in the year 1740. But the particulars of these wars, with regard to the different states of Italy, naturally fall to be considered under the history of those states into which the country is now divided; viz. Sardinia, Milan or the Milanese, Genoa, Venice, Tuscany or Florence, Lucca, St Marino, Parma, Mantua, Modena, Rome, and Naples. Italy.

70 Air, &c. of Italy.

The air in Italy is very different, according to the different situations of the several countries contained in it. In those on the north of the Appenines it is more temperate, but on the south it is generally very warm. The air of the Campania of Rome, and of the Ferrarese, is said to be unhealthful; which is owing to the lands not being duly cultivated, nor the marshes drained. That of the other parts is generally pure, dry, and healthy. In summer, the heat is very great in the kingdom of Naples; and would be almost intolerable, if it was not somewhat alleviated by the sea breezes. The soil of Italy in general is very fertile, being watered by a great number of rivers. It produces a great variety of wines, and the best oil in Europe; excellent silk in abundance; corn of all sorts, but not in such plenty as in some other countries; oranges, lemons, citrons, pomegranates, almonds, raisins, sugar, mulberry-trees without number, figs, peaches, nectarines, apricots, pears, apples, filberts, chesnuts, &c. Most of these fruits were at first imported by the Romans from Asia Minor, Greece, Africa, and Syria, and were not the natural products of the soil. The tender plants are covered in winter on the north side of the Apennines, but on the south side they have no need of it. This country also yields good pasture; and abounds with cattle, sheep, goats, buffaloes, wild boars, mules, and horses. The forests are well stored with game; and the mountains yield not only mines of iron, lead, alum, sulphur, marble of all sorts, alabaster, jasper, porphyry, &c. but also gold and silver; with a great variety of aromatic herbs, trees, shrubs, and evergreens, as thyme, lavender, laurel, and bays, wild olive trees, tamarinds, juniper, oaks, and pines.

A very extensive trade is carried on in many places in Italy, particularly at Leghorn, Genoa, Bologna, Venice, and Naples; the country having a great variety of commodities and manufactures for exportation, especially wine, oil, perfumes, fruits, and silks. Travellers also bring large sums of money into Italy, besides what they lay out in pictures, curiosities, relics, antiquities, &c.

71 Dress, disposition, &c. of the inhabitants.

The Italians are generally well proportioned, though their complexions are none of the best. As to dress, they follow the fashions of the countries on which they border, or to which they are subject; namely, those of France, Spain, and Germany. With respect to their genius and taste in architecture, painting, carving, and music,

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Italy. music, they are thought to excel greatly, and to leave the other nations of Europe far behind them; but their music seems too soft and effeminate to deserve all the praise bestowed on it; and their houses are far inferior to those of England in respect of convenience. No country hath produced better politicians, historians, poets, painters, and sculptors; we mean since the revival of the arts and sciences, exclusive of those of ancient times. The Italians are very affable, courteous, ingenious, sober, and ready-witted; but extremely jealous, vindictive, lascivious, ceremonious, and superstitious. In respect to jealousy, indeed, it is said, a very extraordinary change has taken place; and that the Italians are now no less indulgent and complaisant to their wives than the most polite husbands in France itself. In their tempers, the Italians seem to be a good medium between the French and Spaniards; neither so gay and volatile as the one, nor so grave and solemn as the other.

72 Revolution. The extraordinary successes of the French in 1796, reduced most of the Italian powers to a state of dependence on France. The arrival of the Russians restored them to liberty for a little, but the battle of Marengo again gave Italy to France. Naples was allowed to enjoyed a nominal independence till 1806, when the king was expelled. From that period Italy was in reality a province of Bonaparte's empire, till she was liberated by the arms of the allies in 1814. Italy.

73 Population. By a census taken under Bonaparte, the population of Italy was found to be as under:

Naples,	4,963,000
The territories of Sardinia,	3,024,000
Lombardy and Venice	4,014,000
Ecclesiastical state	2,346,000
Tuscany	1,180,000
Parma, Placentia, and Guastalla	377,000
States of Modena	370,000
Lucca	138,000
Total	16,412,000

The agriculture, commerce, population, arts, &c. of Italy, are fully discribed in the article ITALY in the SUPPLEMENT.

ITH

Itch || Ithaca. ITCH, a cutaneous disease, appearing in small watery pustules on the skin; commonly of a mild nature, though sometimes attended with obstinate and dangerous symptoms. See MEDICINE *Index*.

ITCH-Insect. See ACARUS, ENTOMOLOGY *Index*.

In speaking of the manner of finding these insects in the itch, Fabricius observes, that the failure of many who have sought for them has been owing to their having expected to meet with them in the larger vesicles that contain a yellowish fluid like pus; in these, however, he tells us, he has never found them, but in those pustules only which are recent, and contain only a watery fluid. We must therefore, he observes, not expect to find them in the same proportionate number in patients who for many months have been afflicted with the disease, as in those in whom its appearance is recent, and where it is confined to the fingers or wrists. The cause of this difference with respect to the pustules, he conjectures, may be owing to the death of the insect after it has deposited its eggs.

A small transparent vesicle being found, a very minute white point, distinct from the surrounding fluid, may be discovered, and very often even without the assistance of a glass; this is the insect, which may be easily taken out on the point of a needle or penknife, and when placed on a green cloth may be seen much more distinctly, and observed to move. All this, we must remark, probably depends on optical deception.

ITEA, a genus of plants belonging to the pentandria class. See BOTANY *Index*.

ITHACA, in *Ancient Geography*, an island in the Ionian sea, on the coast of Epirus; the country of Ulysses, with a town and port situated at the foot of Mount Neius. According to Pliny it is about 25 miles in compass; according to Artemidorus only 10; and is now found to be 17 miles long and four broad. See IONIAN ISLES, SUPPLEMENT.

ITZ

Itinerary || Itzecuintepotzotli. ITINERARY, ITINERARIUM; a journal, or an account of the distances of places. The most remarkable is that which goes under the names of *Antoninus* and *Æthicus;* or, as Barthius found in his copy, *Antoninus Æthicus;* a Christian writer, posterior to the times of Constantine. Another, called *Hierosolymitanum*, from Bourdeaux to Jerusalem, and from Heraclea through Aulona and Rome to Milan, under Constantine.—*Itinerarium* denotes a day's march.

ITIUS PORTUS, in *Ancient Geography*, the *crux geographorum*, such being the difficulty of ascertaining its position. It would be endless to recite the several opinions concerning it, with the several reasons advanced in support of them. Three ports are mentioned by Cæsar; two without any particular name, viz. the Higher and the Lower with respect to the *Portus Itius*. Calais, Boulogne, St Omer, and Whitsand, have each in their turn had their several advocates. Cæsar gives two distinctive characters or marks which seem to agree equally to Boulogne and Whitsand, namely, the shortness of the passage, and the situation between two other ports; therefore nothing can with certainty be determined about the situation of the *Portus Itius*.

ITYS, in fabulous history, a son of Tereus king of Thrace, by Procne daughter of Pandion king of Athens. He was killed by his mother when he was about six years old, and served up before his father. He was changed into a pheasant, his mother into a swallow, and his father into an owl.

ITZECUINTEPOTZOTLI, or HUNCH-BACKED DOG, a Mexican quadruped similar to a dog. It is as large as a Maltesan dog, the skin of which is varied with white, tawny, and black. The characteristic mark is a great hunch which it bears from its neck to its rump. This animal abounds most in the kingdom of Michuacan.

ITZEHOA,

Itzehoa ‖ Juan.

ITZEHOA, an ancient and handsome town of Germany, in the circle of Lower Saxony, and duchy of Holstein. It belongs to the king of Denmark, and is seated on the river Stoer, in E. Long. 9. 25. N. Lat. 54. 8.

IVA, a genus of plants belonging to the monœcia class; and in the natural method ranking under the 4th order, *Compositæ*. See BOTANY *Index*.

IVAHAH is the name of a canoe of the South sea islanders for short excursions to sea: it is wall-sided, flat-bottomed, and of different sizes, from 72 feet to 10: but their breadth is by no means in proportion; for those of ten feet are about a foot wide, and those of more than 70 are scarcely two. The fighting ivahah is the longest, with its head and stern considerably raised. The fishing ivahahs are from 40 feet long to 10; those of 25 feet and upwards occasionally carry sail. The travelling ivahah is always double, and furnished with a small neat house.

JUAN DE FUCA, a strait on the north-west coast of America, was surveyed by Captain Vancouver, and the entrance of which he places in N. Lat. 48. 20. and W. Long. 124. The object of this survey was to discover a communication between the North Pacific and North Atlantic oceans; but none of the inlets or channels in this broken coast was found to extend more than 100 miles to the eastward of the entrance into the strait.

Thus it appeared, that the land forming the north side of that strait is part of an island, or of an archipelago, extending nearly 100 leagues in length from south-east to north-west; and on the side of this land, most distant from the continent, is situated Nootka sound. The most peculiar circumstance of this navigation is the extreme depth of water, when contrasted with the narrowness of the channels.

The people of Juan de Fuca are said to be well acquainted with the principles of trade, which they carry on in a very fair and honourable manner. The commodities most prized by them are copper, fire-arms, and great-coats. Their dresses, besides skins, are a kind of woollen garments. According to Vancouver, the dogs belonging to this tribe of Indians are numerous, resembling those of Pomerania, though larger in general. The population even in the greatest towns or villages does not exceed 600, and the smallpox is reckoned to be a disease very fatal among them. Their method of disposing of their dead is singular. "Baskets (says Vancouver) were found suspended on high trees, each containing the skeleton of a young child, in some of which were also small square boxes filled with a kind of white paste, resembling such as I had seen the natives eat, supposed to be made of the saranne root: some of these boxes were quite full; others were nearly empty, eaten probably by the mice, squirrels, or birds."

JUAN, *St, de la Frontera*, a town of South America, in Chili, in the province of Chiquito, near the lake Guanacho. The territory of this town is inhabited by 20,000 native Americans, who are tributary to Spain. It contains mines of gold, and produces a kind of almonds that are very delicate. It is seated at the foot of the Andes, in W. Long. 66. 35. S. Lat. 23. 25.

Juan de Porto Rico, an island of America, and one of the Caribbees, being 100 miles in length and 50 in breadth. It belongs to the Spaniards; and is full of very high mountains, and extremely fertile valleys, interspersed with woods, and well watered with springs and rivulets. It produces sugar, rum, ginger, corn, and fruits; partly proper to the climate, and partly introduced from Spain. Besides, there are so many cattle, that they often kill them for the sake of the skins alone. Here are a great number of uncommon trees, and there is a little gold in the north part of the island. It is commonly said that the air is healthy; and yet the earl of Cumberland, when he had taken this island, lost most of his men by sickness; and for that reason was forced to abandon it. This happened in the reign of Queen Elizabeth. It is subject to storms and hurricanes, like the rest of these islands. It lies to the east of Hispaniola, at the distance of 50 miles.

Juan.

Juan de Porto Rico, the capital town of the island of Porto Rico, with a good harbour defended by several forts, and a bishop's see. It is seated on the north coast of the island, in W. Long. 65. 35. N. Lat. 18. 30.

Juan Fernandez, an island in the great South sea, in S. Lat. 33. 40. and W. Long. 78. 30. from London. It was formerly a place of resort for the buccaneers who annoyed the western coast of the Spanish continent. They were led to resort hither from the multitude of goats which it nourished; to deprive their enemies of which advantage, the Spaniards transported a considerable number of dogs, which increasing greatly, have almost extirpated the goats, who now only find security among the steep mountains in the northern parts, which are inaccessible to their pursuers. There are instances of two men living, at different times, alone on this island for many years; the one a Musquito Indian; the other Alexander Selkirk, a Scotchman, who was, after five years, taken on board an English ship, which touched here in 1710, and brought back to Europe. From the history of this recluse, Daniel Defoe is said to have conceived the idea of writing the Adventures of Robinson Crusoe. This island was very propitious to the remains of Commodore Anson's squadron in 1741, after having been buffeted with tempests, and debilitated by an inveterate scurvy, during a three months passage round Cape Horn: they continued here three months; during which time the dying crews, who on their arrival could scarcely with one united effort heave the anchor, were restored to perfect health. Captain Carteret, in the Swallow, in 1767, having met with many difficulties and impediments in his passage into the South sea, by the straits of Magelhaens, attempted to make this island in order to recruit the health of his men; but he found it fortified by the Spaniards, and therefore chose rather to proceed to the island of Masafuero. But M. de Bougainville that same year is said to have touched here for refreshments, although in the narrative of the voyage the fact is cautiously suppressed. This island is not quite 15 miles long and about six broad; its only safe harbour is on the north side. It is said to have plenty of excellent water, and to abound with a great variety of esculent vegetables highly antiscorbutic; besides which, Commodore Anson sowed a variety of garden-seeds, and planted the stones of plums, apricots, and peaches, which he was many years afterwards informed had thriven greatly; and now doubtless furnish a very valuable addition to the natural productions of this spot. Vast shoals of fish of-

various

Juan Jubilee.

various kinds frequent this coast, particularly cod of a prodigious size. There are but few birds here, and those few are of species well known and common.

Juan Blanco, or *White Jack*, a Spanish name for platina. See PLATINA, CHEMISTRY *Index*.

JUBA, a king of Numidia and Mauritania. He had succeeded his father Hiempsal, and he favoured the cause of Pompey against Julius Cæsar. He defeated Curio whom Cæsar had sent to Africa, and after the battle of Pharsalia he joined his forces to those of Scipio. He was conquered in a battle at Thapsus, and totally abandoned by his subjects. He killed himself with Petreius, who had shared his good fortune and his adversity, in the year of Rome 707. His kingdom became a Roman province, of which Sallust was the first governor.

JUBA II. son of the former, was led among the captives to Rome to adorn the triumph of Cæsar. His captivity was the source of the greatest honours, and his application to study procured him more glory than he would have obtained from the inheritance of a kingdom. He gained the hearts of the Romans by the courteousness of his manners, and Augustus rewarded his fidelity by giving him in marriage Cleopatra the daughter of Antony, and conferring upon him the title of *king*, and making him master of all the territories which his father once possessed, in the year of Rome 723. His popularity was so great, that the Mauritanians rewarded his benevolence by making him one of their gods. The Athenians raised him a statue, and the Æthiopians worshipped him as a deity. Juba wrote an history of Rome in Greek, which is often quoted and commended by the ancients. Of it only few fragments remain. He also wrote on the history of Arabia, and the antiquities of Assyria, chiefly collected from Berosus. Besides these, he composed some treatises upon the drama, Roman antiquities, the nature of animals, painting, grammar, &c. now lost.

JUBILEE, among the Jews, denotes every fiftieth year; being that following the revolution of seven weeks of years; at which time all the slaves were made free, and all lands reverted to their ancient owners. The jubilees were not regarded after the Babylonish captivity. —The word, according to some authors, comes from the Hebrew, *jobel*, which signifies *fifty*: but this must be a mistake, for the Hebrew יובל, *jobel*, does not signify fifty; neither do its letters, taken as cyphers, or according to their numerical powers, make that number; being 10, 6, 2, and 30, that is, 48.——Others say, that *jobel* signifies a *ram*, and that the jubilee was thus called, because proclaimed with a ram's horn, in memory of the ram that appeared to Abraham in the thicket. Masius chooses to derive the word from *Jubal*, the first inventor of musical instruments, which for that reason, were called by his name; whence the words *jobel* and *jubilee* came to signify the year of deliverance and remission, because proclaimed with the sound of one of those instruments which at first was not more than the horn of a ram. Others derive *jobel* from יבל, *jabal* in hiphil חביל, *hobil*, which signifies to recal or return; because this year restored all slaves to their liberty, &c. The institution of this festival is in Lev. xxv. 8, 17.

The learned are divided about the year of jubilee; some maintaining that it was every forty-ninth, and others that it was every fiftieth, year. The ground of the former opinion is chiefly this, that the forty-ninth year being of course a sabbatical year, if the jubilee had been kept on the fiftieth, the land must have had two sabbaths, or have lain fallow two years, which, without a miracle, would have produced a dearth. On the other hand, it is alleged, that the Scripture expressly declares for the fiftieth year, Lev. xxv. 10, 11. And besides, if the jubilee and sabbatical year had been the same, there would have been no need of a prohibition to sow, reap, &c. because this kind of labour was prohibited by the law of the sabbatical year, Lev. xxv. 4, 5. The authors of the Universal History, book i. chap. 7. note R, endeavour to reconcile these opinions, by observing, that as the jubilee began in the first month of the civil year, which was the seventh of the ecclesiastical, it might be said to be either the forty-ninth or fiftieth, according as one or other of these computations was followed. The political design of the law of the jubilee was to prevent the too great oppressions of the poor, as well as their being liable to perpetual slavery. By this means a kind of equality was preserved through all the families of Israel, and the distinction of tribes was also preserved, that they might be able, when there was occasion, on the jubilee-year, to prove their right to the inheritance of their ancestors. It served also, like the Olympiads of the Greeks, and the Lustra of the Romans, for the readier computation of time. The jubilee has also been supposed to be typical of the gospel state and dispensation, described by Isaiah, lxi. ver. 1, 2. in reference to this period, as the "acceptable year of the Lord."

Jubilee.

JUBILEE, in a more modern sense, denotes a grand church solemnity or ceremony, celebrated at Rome, wherein the pope grants a plenary indulgence to all sinners; at least to as many as visit the churches of St Peter and St Paul at Rome.

The jubilee was first established by Boniface VII. in 1300, in favour of those who should go *ad limina apostolorum*; and it was only to return every hundred years. But the first celebration brought in such store of wealth to Rome, that the Germans called this the *golden year*; which occasioned Clement VI. in 1343, to reduce the period of the jubilee to fifty years. Urban VI. in 1389, appointed it to be held every thirty-five years, that being the age of our Saviour; and Paul II. and Sixtus IV. in 1475, brought it down to every twenty-five, that every person might have the benefit of it once in his life. Boniface IX. granted the privilege of holding jubilees to several princes and monasteries: for instance, to the monks of Canterbury, who had a jubilee every fifty years; when people flocked from all parts to visit the tomb of Thomas à Becket. Jubilees are now become more frequent, and the pope grants them as often as the church or himself have occasion for them. There is usually one at the inauguration of a new pope. To be entitled to the privileges of the jubilee, the bull enjoins fastings, alms, and prayers. It gives the priests a full power to absolve in all cases, even those otherwise reserved to the pope; to make commutations of vows, &c. in which it differs from a *plenary indulgence*. During the time of jubilee, all other indulgences are suspended.

One of our kings, viz. Edward III. caused his birth day to be observed in manner of a jubilee, when he

became

Jubilee ‖ Judaism.

became fifty years of age, in 1362, but never before or after. This he did by releasing prisoners, pardoning all offences except treason, making good laws, and granting many privileges to the people.

There are particular jubilees in certain cities, when several of their feasts fall on the same day; at Puy en Velay, for instance, when the feast of the Annunciation happens on Good-Friday; and at Lyons when the feast of St John Baptist concurs with the feast of Corpus Christi.

In 1640, the Jesuits celebrated a solemn jubilee at Rome; that being the centennary or hundredth year from their institution; and the same ceremony was observed in all their houses throughout the world.

JUCATAN, or YUCATAN, a large province of New Spain in North America, which is a peninsula. It lies opposite to the island of Cuba, and contains abundance of timber, proper for building ships; as also sugar, cassia, and Indian corn. The original inhabitants are few, they having been very ill used by the Spaniards. Merida is the capital town. It is a flat level country; and is very unhealthy, which may be owing to the frequent inundations.

JUDAH, the fourth son of Jacob, and father of the chief of the tribes of the Jews, distinguished by his name, and honoured by giving birth to the Messiah, died 1636 B. C.

JUDAH Hakkadosh, or the Saint, a rabbi celebrated for his learning and riches, lived in the time of the emperor Antoninus, and was the friend and preceptor of that prince. Leo of Modena, a rabbi of Venice, tells us, that Rabbi Judah, who was very rich, collected about 26 years after the destruction of the temple, in a book which he called the *Misnia*, the constitutions and traditions of the Jewish magistrates who preceded him. But as this book was short and obscure, two Babylonish rabbis, Rabbina and Ase, collected all the interpretations, disputes, and additions, that had been made until their time upon the Misnia, and formed the book called the *Babylonish Talmud* or *Gemara*; which is preferable to the Jerusalem Talmud, composed some years before by Rabbi Jochanan of Jerusalem. The Misnia is the text of the Talmud; of which we have a good edition in Hebrew and Latin by Surenhusius, with notes, in 3 vols folio. It were to be wished the same had been done to the Gemara.

The Kingdom of JUDAH was of small extent compared with that of the kingdom of Israel; consisting only of two tribes, Benjamin and Judah: its east boundary, the Jordan; the Mediterranean its west, in common with the Danites, if we except some places recovered by the Philistines and others taken by the kings of Israel; on the south, its limits seem to have been contracted under Hadad of the royal progeny of Edom, (1 Kings xi. 14.).

Tribe of JUDAH, one of the 12 divisions of Palestine by tribes (Josh. xv.), having Idumea on the south, from the extremity of the Lacus Asphaltites, also the Wilderness of Zin, Cadesbarnea, and the brook or river of Egypt; on the east, the said lake; on the west the Mediterranean; and on the north, the mouth of the said lake; where it receives the Jordan, Bethsemes, Thimna, quite to Ekron on the sea.

JUDAISM, the religious doctrines and rites of the Jews. Judaism was but a temporary dispensation, and was to give way, at least the ceremonial part of it, at the coming of the Messias. For a complete system of Judaism, see the books of Moses. Judaism was anciently divided into several sects; the principal whereof were the Pharisees, Sadducees, and Essenians.

Judaism ‖ Judges.

At present there are two sects among the Jews, viz. the Caraites, who admit of no rule of religion but the law written by Moses; and the Rabbinists, who add to the law the traditions of the Talmud.

JUDAS MACCABEUS, a celebrated general of the Jews, renowned for his many victories over his enemies, at last slain in battle, 261 B. C. See (*History* of the) JEWS, N° 13.

JUDAS-Tree. See CERCIS, BOTANY *Index*.

JUDE, ST, brother of St James the younger, and son of Joseph (Mat. xiii. 55.). He preached in Mesopotamia, Arabia, Syria, Idumea; and died in Berytus for the confession of Christ. He wrote that epistle which goes under his name, and after the death of most of the apostles. He was cruelly put to death for reproving the superstition of the Magi.

JUDE, or *the General epistle of Jude*, a canonical book of the New Testament, written against the heretics, who, by their disorderly lives and impious doctrines, corrupted the faith and good morals of the Christian. St Jude draws them in lively colours, as men given up to their passions, full of vanity, conducting themselves by worldly wisdom, and not by the spirit of God.

JUDEA, in *Ancient Geography*, taken largely, either denotes all Palestine, or the greater part of it; and thus it is generally taken in the Roman history: Ptolemy, Rutilinus, Jerome, Origen, and Eusebius, take it for the whole of Palestine. Here we consider it as the third part of it on this side the Jordan, and that the southern part is distinct from Samaria and Galilee: under which notion it is often taken, not only in Josephus, but also in the New Testament. It contained four tribes; Judah, Benjamin, Dan, and Simeon, together with Philistia and Idumea; so as to be comprised between Samaria on the north, Arabia Petræa on the south, and to be bounded by the Mediterranean on the west, and by the lake Asphaltites, with part of Jordan, on the east. Josephus divides it into 11 toparchies; Pliny into 10; by which it has a greater extent than that just mentioned. See PALESTINE.

JUDENBURG, a considerable town of Germany, in the circle of Austria, and capital of Upper Stiria, with a handsome castle; the public buildings are a castle, a college, and two convents. It is seated on the river Meur. E. Long. 14. 25. N. Lat. 47. 10.

JUDEX, MATTHEW, one of the principal writers of the Centuries of Magdeburg, was born at Tippleswolde in Misnia, in 1528. He taught theology with great reputation; but met with many disquiets in the exercise of his ministry from party-feuds. He wrote several works and died in 1564.

JUDGE, a chief magistrate of the law, appointed to hear causes, to explain the laws, and to pass sentence.

JUDGES, in Jewish antiquity, certain supreme magistrates who governed the Israelites from the time of Joshua till the reign of Saul. These judges resembled the Athenian archons or Roman dictators. The dignity

Judges, Judgement.

nity of judge was for life, but not always in uninterrupted succession. God himself, by some express declaration of his will, regularly appointed the judges: But the Israelites did not always wait for his appointment, but sometimes chose themselves a judge in times of danger. The power of the judges extended to affairs of peace and war. They were protectors of the laws, defenders of religion, avengers of all crimes; but they could make no laws, nor impose any new burdens upon the people. They lived without pomp or retinue, unless their own fortunes enabled them to do it; for the revenues of their office consisted in voluntary presents from the people. They continued from the death of Joshua till the beginning of the reign of Saul, being a space of about 339 years.

JUDGES, for ordinary affairs, civil and religious, were appointed by Moses in every city to terminate differences; in affairs of greater consequence, the differences were referred to the priests of Aaron's family, and the judge of the people or prince at that time established. Moses likewise set up two courts in all the cities, one consisting of priests and Levites, to determine points concerning the law and religion; the other consisting of heads of families, to decide in civil matters.

Book of JUDGES, a canonical book of the Old Testament, so called from its relating to the state of the Israelites under the administration of many illustrious persons who were called *judges*, from being both the civil and military governors of the people, and who were raised up by God upon special occasions, after the death of Joshua, till the time of their making a king. In the time of this peculiar polity, there were several remarkable occurrences, which are recorded in this book. It acquaints us with the gross impiety of a new generation which sprung up after the death of Joshua; and gives us a short view of the dispensations of heaven towards this people, sometimes relieving and delivering them, and at others severely chastising them by the hands of their enemies.

Select JUDGES (*Judices selecti*), in *Antiquity*, were persons summoned by the prætor to give their verdict in criminal matters in the Roman courts, as juries do in ours. No person could be regularly admitted into this number till he was 25 years of age. The *Sortitio Judicum*, or impannelling the jury, was the office of the *Judex Questionis*, and was performed after both parties were come into court, for each had a right to reject or challenge whom they pleased, others being substituted in their room. The number of the *Judices selecti* varied, according to the nature of the charge. When the proper number appeared, they were sworn, took their places in the *subsellia*, and heard the trial.

JUDGEMENT, among logicians, a faculty or rather act of the human soul, whereby it compares its ideas, and perceives their agreement or disagreement. See METAPHYSICS; and LOGIC, Part II.

JUDGEMENT, in *Law*, is the sentence pronounced by the court upon the matter contained in the record. Judgements are of four sorts. First, where the facts are confessed by the parties, and the law determined by the court; as in case of judgement upon *demurrer*: secondly, where the law is admitted by the parties, and the facts disputed; as in the case of judgement on *verdict*: thirdly, where both the fact and the law arising thereon are admitted by the defendant; which is the case of judgements by *confession* or *default*: or, lastly, where the plaintiff is convinced that either fact, or law, or both, are insufficient to support his action, and therefore abandons or withdraws his prosecution; which is the case in judgements upon a *nonsuit* or *retraxit*.

Judgement.

The judgement, though pronounced or awarded by the judges, is not their determination or sentence, but the determination and sentence of the *law*. It is the conclusion that naturally and regularly follows from the premisses of law and fact, which stands thus: Against him who hath rode over my corn, I may recover damages by law: but A hath rode over my corn; therefore I shall recover damages against A. If the major proposition be denied, this is a demurrer in law: if the minor, it is then an issue of fact: but if both be confessed or determined to be right, the conclusion or judgement of the court cannot but follow. Which judgement or conclusion depends not therefore on the arbitrary caprice of the judge, but on the settled and invariable principles of justice. The judgement, in short, is the remedy prescribed by law for the redress of injuries; and the suit or action is the vehicle or means of administering it. What that remedy may be, is indeed the result of deliberation and study to point out; and therefore the style of the judgement is, not that it is decreed or resolved by the court, for then the judgement might appear to be their own; but, "it is considered," *consideratum est per curiam*, that the plaintiff do recover his damages, his debt, his possession, and the like: which implies that the judgement is none of their own; but the act of law, pronounced and declared by the court, after due deliberation and inquiry. See *Blackst. Comment.* iii. 396.

JUDGEMENT, in criminal cases, is the next stage of prosecution, after TRIAL and CONVICTION are past, in such crimes and misdemeanors as are either too high or too low to be included within the benefit of clergy. For when, upon a capital charge, the JURY have brought in their VERDICT guilty in the presence of the prisoner; he is either immediately, or at a convenient time soon after, asked by the court, if he has any thing to offer why judgement should not be awarded against him? And in case the defendant be found guilty of a misdemeanor (the trial of which may, and does usually, happen in his absence, after he has once appeared), a *capias* is awarded and issued, to bring him in to receive his judgement; and if he absconds, he may be prosecuted even to outlawry. But whenever he appears in person, upon either a capital or inferior conviction, he may at this period, as well as at his arraignment, offer any exceptions to the indictment, in *arrest* or stay of judgement: as for want of sufficient certainty in setting forth either the person, the time, the place, or the offence. And if the objections be valid, the whole proceedings shall be set aside; but the party may be indicted again. And we may take notice, 1. That none of the statutes of *jeofails*, for amendment of errors, extend to indictments or proceedings in criminal cases; and therefore a defective indictment is not aided by a verdict, as defective pleadings in civil cases are. 2. That, in favour of life, great strictness has at all times been observed, in every point of an indictment. Sir Matthew Hale indeed complains, "that this strict-

Blackst. Comment.

Judgement. ness is grown to be a blemish and inconvenience in the law, and the administration thereof: for that more offenders escape by the over-easy ear given to exceptions in indictments, than by their own innocence; and many times gross murders, burglaries, robberies, and other heinous and crying offences, remain unpunished by these unseemly niceties: to the reproach of the law, to the shame of the government, to the encouragement of villany, and to the dishonour of God." And yet, notwithstanding this laudable zeal, no man was more tender of life than this truly excellent judge.

A pardon also may be pleaded in arrest of judgement; and it has the same advantage when pleaded here as when pleaded upon ARRAIGNMENT; viz. the saving the ATTAINDER, and, of course, the CORRUPTION of blood: which nothing can restore but parliament, when a pardon is not pleaded till after sentence. And certainly, upon all accounts, when a man hath obtained a pardon, he is in the right to plead it as soon as possible. See PARDON.

Praying the benefit of clergy may also be ranked among the motions in arrest of judgement. See *Benefit of* CLERGY.

If all the resources fail, the court must pronounce that judgment which the law hath annexed to the crime. Of these some are capital, which extend to the life of the offender, and consist generally in being hanged by the neck till dead; though in very atrocious crimes other circumstances of terror, pain, or disgrace, are superadded: as, in treasons of all kinds, being drawn or dragged to the place of execution; in high treason affecting the king's person or government, embowelling alive, beheading, and quartering; and in murder, a public dissection. And in case of any treason committed by a female, the judgment is to be burned alive. But the humanity of the English nation has authorized, by a tacit consent, an almost general mitigation of such parts of these judgements as savour of torture or cruelty: a sledge or hurdle being usually allowed to such traitors as are condemned to be drawn; and there being very few instances (and those accidental or by negligence) of any person's being embowelled or burned, till previously deprived of sensation by strangling. Some punishments consist in exile or banishment, by abjuration of the realm, or transportation beyond the seas: others, in loss of liberty, by perpetual or temporary imprisonment. Some extend to confiscation, by forfeiture of lands, or moveables, or both, or of the profits of lands for life: others induce a disability of holding offices or employments, being heirs, executors, and the like. Some, though rarely, occasion a mutilation or dismembering, by cutting off the hand or ears: others fix a lasting stigma on the offender, by slitting the nostrils or branding in the hand or face. Some are merely pecuniary, by stated or discretionary fines: and, lastly, there are others that consist principally in their ignominy, though most of them are mixed with some degree of corporeal pain; and these are inflicted chiefly for such crimes as either arise from indigence, or render even opulence disgraceful. Such as whipping, hard labour in the house of correction, the pillory, the stocks, and the ducking-stool.

Disgusting as this catalogue may seem, it will afford pleasure to a British reader, and do honour to the British laws, to compare it with that shocking apparatus of death and torment to be met with in the criminal codes of almost every other nation in Europe. And it is moreover one of the glories of our law, that the nature, though not always the quantity or degree, of punishment is ascertained for every offence; and that it is not left in the breast of any judge, nor even of a jury, to alter that judgement which the law has beforehand ordained for every subject alike, without respect of persons. For if judgements were to be the private opinions of the judge, men would then be slaves to their magistrates; and would live in society, without knowing exactly the conditions and obligations which it lays them under. And, besides, as this prevents oppression on the one hand; so, on the other, it stifles all hopes of impunity or mitigation, with which an offender might flatter himself if his punishment depended on the humour and discretion of the court. Whereas, where an established penalty is annexed to crimes, the criminal may read their certain consequence in that law, which ought to be the unvaried rule, as it is the inflexible judge, of his actions. Judgement ‖ Judicium.

JUDGEMENT of God. See *JUDICIUM Dei.*

JUDICATURE, the quality or profession of those who administer justice.

JUDICATURE is also used to signify the extent of the jurisdiction of the judge, and the court wherein he sits to render justice.

JUDICIA CENTUMVIRALIA, in Roman antiquity, were trials before the *Centumviri*, to whom the *prætor* committed the decision of certain matters of inferior nature, like our justices of peace at the quarter sessions. During the *judicia centumviralia*, a spear was stuck up in the forum, to signify that the court was sitting.

JUDICIUM CALUMNIÆ, was an action brought against the plaintiff for false accusation. The punishment, upon conviction, was *inustio frontis*, or branding in the forehead. See INUSTIO.

JUDICIUM Dei, Judgment of God, was a term anciently applied to all extraordinary trials of secret crimes; as those by arms, and single combat; and the ordeals, or those by fire, or red-hot ploughshares, by plunging the arm in boiling water, or the whole body in cold water; in hopes God would work a miracle, rather than suffer truth and innocence to perish. *Si super defendere non possit, judicio Dei scil. aqua vel ferro, fieret de eo justitia.*—These customs were a long time kept up even among Christians; and they are still in use in some nations. See BATTEL, ORDEAL, &c.—Trials of this sort were usually held in churches in presence of the bishops, priests, and secular judges; after three days fasting, confession, communion, and many adjurations and ceremonies described at large by Du Cange.

JUDICIUM Parium denotes a trial by a man's equals, i. e. of peers by peers, and of commoners by commons. In *magna charta* it is more than once insisted on as the principal bulwark of our liberties, but especially by chap. 29. that no freeman shall be hurt in either his person or property, *nisi per legale judicium parium suorum vel per legem terræ.* And this was even esteemed in all countries a privilege of the highest and most beneficial nature.

Judicium ‖ Jugglers.

Judicium Falsi, was an action which lay against the judges for corruption or unjust proceedings.

Judicium Prævaricationis, was an action brought against the prosecutor, after the criminal was acquitted, for suppressing the evidence of, or extenuating his guilt, rather than urging it home, and bringing it to light.

JUDOIGNE, a town in the kingdom of the Netherlands, in Brabaut. Near this town the duke of Marlborough gained that signal victory over the French in 1706, called the *battle of Ramillies*. It is seated on river Gete, 13 miles south-east of Louvain, and 16 north of Namur.

IVEACH, the name of two baronies of Ireland, in the county of Down, and province of Ulster. They are distinguished into Upper and Lower Iveach, and the former is by much the largest barony in that county. The name of *Iveach*, or *Hy Veach*, is said to be taken from *Achaius*, in Irish called *Eachach*, grand-father to King *Coalbpaig*, as much as to say "the territory of Eachach;" for *hy*, in the Irish language, is a common adjective, denoting not only the heads and founders of families, but also the territories possessed by them. Iveach (including both baronies) was otherwise called *Magennis's country*, and in Queen Elizabeth's time was governed by Sir Hugh Magennis, esteemed to have been one of the most polite of all the natives in those parts. Through part of this barony runs a chain of mountains considerably high, known by the name of *Iveach mountains*.

IUERNUS, in *Ancient Geography*, a town in the south-west of Irelaod. Now *Dunkeram*, (Camden); called *Donekyne* by the natives, situated on the river Maire, in the province of Munster.

Iuernus, or Iernus (Ptolemy), a river in the south-west of Ireland. Now called the *Maire*, or *Kenmare*, running from east to west, in the province of Munster.

IVES, St, a sea-port town of Cornwall in England, seated on a bay of the same name; which is chiefly frequented by fishermen, for the taking of pilchards. By this trade, and that of Cornish slates, it has thriven greatly. It is a corporation, governed by a mayor, recorder, &c. and it sends two members to parliament. Here is a handsome spacious church, and a grammar-school, which was founded by Charles I. Population 3281 in 1811.

Ives, *St*, is also the name of a town in Huntingdonshire, 64 miles from London. It has a fine stone bridge over the Ouse, had in the ninth century a mint, and was noted for its medicinal waters. Great part of it was burnt down some years ago, but it was rebuilt. Here is a very good market on Monday for fatted cattle brought from the north. Here Oliver Cromwell rented a farm before he was chosen a burgess for Cambridge. Population 2426 in 1811.

JUGERUM, in Roman antiquity, a square of 120 Roman feet; its proportion to the English acre being as 10.000 to 16.097.

JUGGLERS, a kind of people whose profession has not been often deemed either respectable or useful. Yet Professor Beckmann defends them, and pleads ably the cause of the practisers of legerdemain, in the third volume of his History of Inventions, including rope-dancers, and such as exhibit feats of uncommon strength. He places all these under the general denomination of jugglers; and taking it for granted that every useful employment is full, he contends that there would not be room on the earth for all its present inhabitants, did not some of them practise the art of juggling. Jugglers ‖ Jugum.

"These arts, he observes, are not unprofitable, for they afford a comfortable subsistence to those who practise them, which they usually spend upon the spot, and this he considers as a good reason why their stay in a place ought to be encouraged. He is also of opinion that if the arts of juggling served no other end than to amuse the most ignorant of our citizens, it is proper that they should be encouraged, for the sake of those who cannot enjoy the more expensive deceptions of an opera. They convey instruction in the most acceptable manner, and serve as an antidote to superstition. We scarcely think, however, that it is innocent to entice the labouring poor, by useless deceptions, to part with their hard-earned pittance to idle vagabonds, whose life cannot be comfortable, which is passed amidst scenes of the most grovelling dissipation.

Juggling is certainly of very great antiquity. The deception of breathing out flames was practised by some of the slaves in Sicily about 150 years before the commencement of the Christian æra. It is, however, practised in modern times with much greater dexterity. The ancients made use of naphtha, a liquid mineral oil, which kindles when it only approaches a flame. According to Plutarch, Alexander the Great was astonished and delighted with the secret effects of naphtha, which were exhibited to him at Ecbatana. Wonder has been excited in modern times by persons who could walk over burning coals or red-hot iron, which is easily done by rendering the skin of the feet callous and insensible, so that the nerves under it are secured from injury. We are told by Beckmann, that the Hirpi, who dwelt near Rome, jumped through burning coals; that women were accustomed to walk over burning coals at Castabala, near the temple dedicated to Diana; that the exhibition of balls and cups is often mentioned in the works of the ancients; and that the various feats of horsemanship exhibited in our circuses passed, in the 13th century, from Egypt to the Byzantine court, and thence over all Europe.

JUGLANS, the Walnut, a genus of plants belonging to the polyandria class; and in the natural method ranking under the 50th order, *Amentaceæ*. See Botany *Index*.

JUGORA, a considerable province of Muscovy, depending on the government of Archangel. It has the title of a duchy; and is inhabited by a kind of Tartars, who are very savage, and much of the same disposition with the Samoiedes.

JUGULAR, among anatomists, is applied to certain veins and glands of the neck. See Anatomy.

JUGULARES, in the Linnæan system, is the name of an order or division of fish, the general character of which is, that the ventral fins are placed before the pectoral. See Ichthyology *Index*.

JUGUM, an humiliating mode of punishment inflicted by the victorious Romans upon their vanquished enemies. It was thus: They set up two spears, and laying a third across, in the form of a gallows, they ordered those who had surrendered themselves to pass under this ignominious erection, without arms or belts. None

Jugum || Juice.

suffered this disgrace of passing *sub jugo* but such as had been obliged to surrender.

JUGURTHA, the illegitimate son of Manastabal the brother of Micipsa. Micipsa and Manastabal were the sons of Masinissa king of Numidia. Micipsa, who had inherited his father's kingdom, educated his nephew with his two sons Adherbal and Hiempsal; but as he saw that the former was of an aspiring disposition, he sent him with a body of troops to the assistance of Scipio, who was besieging Numantia, hoping to lose a youth whose ambition seemed to threaten the tranquillity of his children. His hopes were frustrated; Jugurtha showed himself brave and active, and he endeared himself to the Roman general. Micipsa appointed him successor to his kingdom with his two sons; but the kindness of the father proved fatal to the children. Jugurtha destroyed Hiempsal, and stripped Adherbal of his possessions, and obliged him to fly to Rome for safety. The Romans listened to the well-grounded complaints of Adherbal; but Jugurtha's gold prevailed among the senators, and the suppliant monarch, forsaken in his distress, perished by the snares of his enemy. Cæcilius Metellus was at last sent against Jugurtha; and his firmness and success soon reduced the crafty Numidian, obliging him to fly among his savage neighbours for support. Marius and Sylla succeeded Metellus, and fought with equal success. Jugurtha was at last betrayed by his father-in-law Bocchus, from whom he claimed assistance; and he was delivered into the hands of Sylla 106 years before the Christian era. He was exposed to the view of the Roman people, and dragged in chains to adorn the triumph of Marius. He was afterwards put in a prison, where he died six days after of hunger.

IVICA, or YVICA, the name of an island in the Mediterranean. See YVICA.

JUICE, denotes the sap of vegetables, or the liquors of animals. See ANATOMY, BLOOD, PLANTS, SAP, &c.

The juices of several plants are expressed to obtain their essential salts, and for several medicinal purposes, with intention either to be used without further preparation, or to be made into syrups and extracts. The general method of extracting these juices is, by pounding the plant in a marble mortar, and then by putting it into a press. Thus is obtained a muddy and green liquor, which generally requires to be clarified, as we shall soon observe. The juices of all plants are not extracted with equal ease. Some plants, even when fresh, contain so little juice, that water must be added while they are pounded, otherwise scarcely any juice would be obtained by expression. Other plants, which contain a considerable quantity of juice, furnish by expression but a small quantity of it, because they contain also much mucilage, which renders the juice so viscid that it cannot flow. Water must also be added to these plants to obtain their juice. The juices thus obtained from vegetables by a mechanical method, are not, properly speaking, one of their principles, but rather a collection of all the proximate principles of plants which are soluble in water; such as the saponaceous extractive matter, the mucilage, the odoriferous principle, all the saline and saccharine substances; all which are dissolved in the water of the vegetation of the plants. Besides all these matters, the juice contains some part of the resinous substance, and the green colouring matter, which in almost all vegetables is of a resinous nature. These two latter substances, not being soluble in water, are only interposed between the parts of the other principles which are dissolved in the juice, and consequently disturb its transparency. They nevertheless adhere together in a certain degree, and so strongly in most juices, that they cannot be separated by filtration alone. When therefore these juices are to be clarified, some previous preparations must be used by which the filtration may be facilitated. Juices which are acid, and not very mucilaginous, are spontaneously clarified by rest and gentle heat. The juices of most antiscorbutic plants abounding in saline volatile principles, may be disposed to filtration merely by immersion in boiling water; and as they may be contained in close bottles, while they are thus heated in a water bath, their saline volatile part, in which their medicinal qualities chiefly consist, may thus be preserved. Fermentation is also an effectual method of clarifying juices which are susceptible of it; for all liquors which have fermented, clarify spontaneously after fermentation. But this method is not used to clarify juices, because many of them are susceptible of only an imperfect fermentation, and because the qualities of most of them are injured by that process. The method of clarification most generally used, and indispensably necessary for those juices which contain much mucilage, is boiling with the white of an egg. This matter, which has the property of coagulating in boiling water, and of uniting with mucilage, does accordingly, when added to the juice of plants, unite with and coagulate their mucilage, and separates it from the juice in form of scum, together with the greatest part of the resinous and earthy matters which disturb its transparency. And as any of these resinous matters which may remain in the liquor, after this boiling with the whites of eggs, are no longer retained by the mucilage, they may easily be separated by filtration.

Juice.

The juices, especially before they are clarified, contain almost all the same principles as the plant itself; because in the operation by which they are extracted, no decomposition happens, but every thing remains, as to its nature, in the same state as in the plant. The principles contained in the juice are only separated from the grosser oily, earthy, and resinous parts, which compose the solid matter that remains under the press. These juices, when well prepared, have therefore the same medicinal qualities as the plants from which they are obtained. They must evidently differ from each other as to the nature and proportions of the principles with which they are impregnated, as much as the plants from which they are extracted differ from each other in those respects.

Most vegetable juices coagulate when they are exposed to the air, whether they are drawn out of the plant by wounds, or naturally run out; though what is called *naturally running out*, is generally the effect of a wound in the plant, from a sort of canker, or some other internal cause. Different parts of the same plant yield different juices. The same veins in their course through the different parts of the plant yield juices of

Juice. a different appearance. Thus the juice in the root of the cow-parsnep is of a brimstone colour; but in the stalk it is white.

Among those juices of vegetables which are clammy and readily coagulate, there are some which readily break with a whey. The great wild lettuce, with the smell of opium, yields the greatest plenty of milky juice of any known British plant. When the stalk is wounded with a knife, the juice flows out readily like a thick cream, and is white and ropy; but if these wounds are made at the top of the stalks, the juice that flows out of them is dashed with a purple tinge, as if cream had been sprinkled over with a few drops of red wine. Some little time after letting this out, it becomes much more purple, and thickens; and finally, the thicker part of it separates, and the thin whey swims at top. The whey or thin part of this separated matter is easily pressed out from the curd by squeezing between the fingers, and the curd will then remain white; and on washing with water it becomes like rags. The purple whey (for in this is contained all the colour) soon dries into a purple cake, and may be crumbled between the fingers into a powder of the same colour. The white curd being dried and kept for some time, becomes hard and brittle. It breaks with a shining surface like resin, and is inflammable; taking fire at a candle, and burning all away with a strong flame. The same thick part being held over a gentle heat, will draw out into tough long threads, melting like wax. The purple cake made from the whey is quite different from this; and when held to a candle scarce flames at all, but burns to a black coal. The whole virtue of the plant seems also to consist in this thin part of its juice: for the coagulum or curd, though looking like wax or resin, has no taste at all; whereas the purple cake made from the serum is extremely bitter, and of a taste somewhat resembling that of opium.

Of the same kind with the wild lettuce are the throatwort, spurge, and many other plants. These are all replete with a milky juice which separates into curds and whey like that already described. But this, though a common law of nature, is not universal; for there are many plants which yield the like milky juices without any reparation ensuing upon their extravasation. The white juice of the sonchus never separates, but dries into an uniform cake: the common red wild poppy bleeds freely with a milky juice: and the heads or capsules of seed bleed not less freely than the rest of the plant, even after the flower is fallen. This juice, on being received into a shell or other small vessel, soon changes its white to a deep yellow colour, and dries into a cake which seems resinous and oily, but no whey separates from it. The tragopogon, or goat's-beard, when wounded, bleeds freely a milky juice; it is at first white, but becomes immediately yellow, and then more and more red, till at length it is wholly of a dusky red. It never separates, but dries together into one cake; and is oily and resinous, but of an insipid taste. The great bindweed also bleeds freely a white juice; the flowers, as well as the stalks and leaves, affording this liquor. It is of a sharp taste; and as many of the purging plants are of this class, it would be worth trying whether this milk is not purgative.

These juices, as well as the generality of others which bleed from plants, are white like milk; but there are some of other colours. The juice of the great celandine is of a fine yellow colour; it flows from the plant of the thickness of cream, and soon dries into a hard cake, without any whey separating from it. Another yellow juice is yielded by the seed-vessels of the yellow centaury in the month of July, when the seeds are full grown. This is very clammy; it soon hardens altogether into a cake without any whey separating from it. It sticks to the fingers like birdlime, is of the colour of pale amber, and will never become harder than soft wax if dried in the shade; but if laid in the sun, it immediately becomes hard like resin. These cakes burn like wax, and emit a very pleasant smell. The great angelica also yields a yellowish juice on being wounded; and this will not harden at all, but if kept several years will still be soft and clammy, drawing out into threads or half melted resin. Juice.

Another kind of juices very different from all these, are those of a gummy nature. Some of these remain liquid a long time, and are not to be dried without the assistance of heat; and others very quickly harden of themselves, and are not inflammable. The gum of the juice of rhubarb leaves soon hardens; and is afterwards soluble in common water, and sparkles when put into the flame of a candle. The clusters of the common honeysuckle are full of a liquid gum. This they frequently throw out, and it falls upon the leaves, where it retains its own form. The red hairs of the ros solis are all terminated by large bladders of a thin watery fluid. This is also a liquid gum; it sticks to the fingers, draws out into long threads, and stands the force of the sun all day. In the centre of each of these dew-drops there is a small red bladder, which stands immediately on the summit of the red hair, and contains a purple juice which may be squeezed out of it. The pinguicula, or butterwort, has also a gummy matter on its leaves in much greater quantity than the ros solis.

Some plants yield juices which are manifestly of an oily nature. These, when rubbed, are not at all of a clammy nature, but make the fingers glib and slippery, and do not at all harden on being exposed to the air, If the stalk of elecampane be wounded, there flows out an oily juice swimming upon a watery one. The stalks of the hemlock also afford a similar oily liquor swimming upon the other; and in like manner the white mullein, the berries of ivy, the bay, juniper, dog-berry tree, and the fruit of the olive, when wounded, show their oil floating on the watery juice. Some of these oily juices, however, harden into a kind of resin. Our ivy yields such a juice very abundantly; and the juice of the small purple-berried juniper is of the same kind, being hard and fat, and not very gummy. If the bark of the common ivy is wounded in March, there will ooze out a tough and greasy matter of a yellowish colour, which, taken up between the fingers, feels not at all gummy or sticking, but melts in handling into a sort of oil, which in process of time hardens and crusts upon the wounds, and looks like brown sugar. It burns with a lasting flame, and smells very strong. The tops of the wild lettuce, and the

Juice of Julian.

the leaves growing near the tops, if examined with a magnifying glass, show a great number of small bladders or drops of an oily juice of a brownish colour, hardening into a kind of resin; they are easily wiped off when of any size, and are truly an oily juice a little hardened. It is probable, also, that the fine blue flour or powder, called the *bloom*, upon the surface of our common plums, is no other than such an oily juice exudating from their pores in small particles, and hardening into a sort of resin.

JUJUBES, in the *Materia Medica*, the name of a fruit of the pulpy kind, produced on a tree which Linnæus makes a species of rhamnus. See RHAMNUS.

The jujubes have been made a general ingredient in pectoral decoctions; but they are now seldom used on these occasions, and are scarce at all heard of in prescription, or to be met with in our shops.

JUL, or JOL, a Gothic word signifying a "sumptuous treat;" and particularly applied to a religious festival first among the heathens and afterwards among Christians. By the latter it was given to CHRISTMAS; which is still known under the name of *Iul*, or *Yool*, in Denmark, Norway, Iceland, and Sweden; nay, even in the north of Britain, and whence the month of Januarius by the Saxons was styled *Giuli*, i. e. "the Festival." As this feast had originally been dedicated by our heathen ancestors to the sun, their supreme deity; so the Christians, for the purpose of engaging the minds of their Ethnic (gentile) brethren, ordered it should be celebrated in memory of the birth of Christ: and thus it has been through ages a feast of joy and entertainment. We are indebted to Procopius for the first account of this feast.

JULEP, in *Pharmacy*, a medicine composed of some proper liquor and a syrup or sugar, of extemporaneous preparation, without decoction. See MATERIA MEDICA *Index*.

JULIAN, the famous Roman emperor, styled *the Apostate*, because he professed the Christian religion before he ascended the throne, but afterwards openly embraced Paganism, and endeavoured to abolish Christianity. He made no use of violence, however, for this purpose; for he knew that violent measures had always rendered it more flourishing: he therefore behaved with a polite mildness to the Christians; recalled all who had been banished on account of religion under the reign of Constantius; and undertook to pervert them by his caresses, and by temporal advantages and mortifications covered over by artful pretences: but he forbade Christians to plead before courts of justice, or to enjoy any public employments. He even prohibited their teaching polite literature; well knowing the great advantages they drew from profane authors in their attacks upon Paganism and irreligion. Though he on all occasions showed a sovereign contempt for the Christians, whom he always called *Galileans*, yet he was sensible of the advantage they obtained by their virtue and the purity of their manners: and therefore incessantly proposed their example to the Pagan priests. At last, however, when he found that all other methods failed, he gave public employments to the most cruel enemies of the Christians, when the cities in most of the provinces were filled with tumults and seditions, and many of them were put to death: Though it has been pleaded by Julian's apologists, that the behaviour of the Christians furnished sufficient pretence for most of his proceedings against them, and the animosities among themselves furnished him with the means; that they were continually prone to sedition, and made a merit of insulting the public worship; and, finally, that they made no scruple of declaring, that want of numbers alone prevented them from engaging in an open rebellion. Historians mention, that Julian attempted to prove the falsehood of our Lord's prediction with respect to the temple of Jerusalem; and resolved to have that edifice rebuilt by the Jews, about 300 years after its destruction by Titus: but all their endeavours served only the more perfectly to verify what had been foretold by Jesus Christ; for the Jews, who had assembled from all parts to Jerusalem, digging the foundations, flames of fire burst forth and consumed the workmen *. However, the Jews, who were obstinately bent on accomplishing that work, made several attempts; but it is said, that all who endeavoured to lay the foundation perished by these flames, which at last obliged them entirely to abandon the work. Julian being mortally wounded in a battle with the Persians, it is said, that he then catched in his hand some of the blood which flowed from his wound; and throwing it towards heaven, cried, "Thou Galilean has conquered." But notwithstanding this popular report, Theodoret relates, that Julian discovered a different disposition; and employed his last moments in conversing with Maximus the philosopher on the dignity of the soul. He died the following night, aged 32. For a particular account of his reign and exploits, see (*History of*) CONSTANTINOPLE, N° 7. 33—66.

Julian.

* See *Jerusalem.*

No prince was ever more differently represented by different authors; on which account it is difficult to form a true judgment of his real character. It must, however, be acknowledged, that he was learned, liberal, temperate, brave, vigilant, and a lover of justice: but, on the other hand, he had apostatised to Paganism; was an enemy to the Christian religion; and was, in fact, a persecutor, though not of the most sanguinary class. We have several of his discourses or orations; some of his letters; a treatise intitled *Misopogon*, which is a satire on the inhabitants of Antioch; and some other pieces, all written in an elegant style. They were published in Greek and Latin by Father Petau in 1630 in quarto; and of which Spanheimius gave a fine edition in folio in 1696. His most famous work was that composed against the Christians, of which there are some fragments in Cyril's refutation of it.

JULIAN Period, in *Chronology*, a period so called, as being adapted to the Julian year.

It is made to commence before the creation of the world. Its principal advantage lies here, that the same years of the cycles of the sun, moon, and indiction, of which three cycles it was made to consist by Joseph Scaliger in 1580, belonging to any year of this period, will never fall together again till after the expiration of 7980 years. There is taken for the first year of this period that which hath the first of the cycle of the sun, the first of the cycle of the moon, and the first of the indiction cycle, and so reckoning on.

The first year of the Christian era is always, in our systems

Julian ‖ Julius Vicus.

systems of chronology, the 4714th of the Julian period.

To find what year of the Julian period any given year of Christ answers to: To the given year of Christ add 4713, because so many years of the Julian period were expired A. D. 1; and the sum gives the year of the Julian period sought.

On the contrary, having the year of the Julian period given, to find what year of Christ answers thereto: From the year of the Julian period given subtract 4713, and the remainder will be the year sought.

JULIAN, *St*, a harbour on the south of Patagonia, in South America, where ships usually touch that are bound to the South seas. S. Lat. 48. 15.

JULIERS, a duchy in the circle of Westphalia, in Germany, seated between the rivers Maese and Rhine, now forming part of the Prussian province of the Lower Rhine. It is about 60 miles long, and 30 broad; has a superficial extent of 1600 square miles, with 200,000 inhabitants, and is a very plentiful country, abounding in cattle, corn, and fine meadows, and is well supplied with wood; but it is most remarkable for a fine breed of horses, and woad for dyeing, which is gathered here in abundance. The chief towns are Juliers, Aix-la-Chapelle, Duren, Munster-Eifel, Bedbur, Wefinburgh, and Lasteren. It was transferred from France to Prussia in 1815.

JULIERS, a city, capital of the duchy of Juliers in Westphalia; some think this city was founded by Julius Cæsar or Julia Agrippina; but this is much questioned by others, because it is not mentioned before Antoninus's Itinerary and Theodosius's Tables. The town is small, but well fortified, and neatly built; the houses are of brick, and the streets broad and regular. The citadel is large and very strong, containing a palace of the ancient dukes and a spacious piazza. In the suburbs there is a monastery of Carthusians, nobly endowed by several dukes of Juliers. The town contains 2150 inhabitants, and there is a fine woollen manufactury in this country, and likewise another of linen. It was taken by Prince Maurice of Nassau in 1610, and by the Spaniards in 1622. It is seated on the river Roer, in E. Long. 6. 18. N. Lat. 50. 55.

JULIO ROMANO. See ROMANO.

JULIUS CÆSAR. See CÆSAR.

JULIUS II. *Julian de la Rovere*, pope, remarkable for his warlike disposition, and his political negociations: by the latter, he engaged the principal powers of Europe to league with him against the republic of Venice, called *the league of Cambray*, signed in 1508. The Venetians having purchased peace by the cession of part of Romania, Julius turned his arms against Louis XII. king of France, and appeared in person armed cap-a-pee, at the siege of Mirandola; which place he took by assault in 1511. But proceeding to excommunicate Louis, the king wisely turned his own weapons against him, by calling a general council at Pisa: at which the pope refusing to appear, was declared to be suspended from the holy see; and Louis, in his turn, excommunicated the pope, who died soon after in 1512. He built the famous church of St Peter at Rome, and was a patron of the polite arts.

JULIUS VICUS, in *Ancient Geography*, a town of the Nemetes in Gallia Belgica; situated between the Tres Tabernæ and Noviomagus. Now *Gemersheim*, a town of the Lower Palatiuate, on the west side of the Rhine. E. Long. 15. 8. N. Lat. 49. 12. Julius Vicus ‖ June.

JULIUS Pollux. See POLLUX.

IULUS, a son of Ascanius, born in Lavinium. In the succession to the kingdom of Alba, Æneas Sylvius, the son of Æneas and Lavinia, was preferred to him. He was, however, made chief priest.

IULUS, a genus of insects of the order aptera. See ENTOMOLOGY *Index*.

JULY, the seventh month of the year; during which the sun enters the sign Leo. The word is derived from the Latin *Julius*, the surname of C. Cæsar the dictator, who was born in it. Mark Antony first gave this month the name *July*, which before was called *Quintilis*, as being the fifth month of the year in the old Roman kalendar established by Romulus, which began in the month of March. For the same reason, August was called *Sextilis*; and September, October, November, and December, still retain the name of their first rank.

Quæ sequitur, numero turba notata suo. OVID. Fast.

On the 19th day of this month the dog-days are commonly supposed to begin; when, according to Hippocrates and Pliny, the sea boils, wine turns sour, dogs go mad, the bile is increased and irritated, and all animals decline and languish.

JULY-Flowers. See DIANTHUS, BOTANY *Index*.

JUMIEGE, a town of Normandy in France, and in the territory of Caux, with a celebrated Benedictine abbey. It is seated on the river Seine, in E. Long. 0. 55. N. Lat. 49. 25.

JUNCI LAPIDEI, the name given by old authors to a species of coral, of the tubularia kind, and composed of a congeries of small tubules. See TUBULARIA, HELMINTHOLOGY *Index*.

JUNCTURE, a joint or closing of two bodies. See JOINT.

JUNCTURE, in *Oratory*, is a part of composition particularly recommended by Quintilian, and denotes such an attention to the nature of the vowels, consonants, and syllables, in the connection of words, with regard to their sound, as will render their pronunciation most easy and pleasant, and best promote the harmony of the sentence. Thus the coalition of two vowels, occasioning a hollow and obscure sound, and likewise of some consonants, rendering it harsh and rough, should be avoided: nor should the same syllable be repeated at the beginning and end of words, because the sound becomes hereby harsh and unpleasant.—The following verse in Virgil's Æneid is an example of juncture.

Arma virumque cano, Trojæ qui primus ab oris.

JUNCUS, the RUSH, a genus of plants belonging to the hexandria class; and in the natural method ranking under the 5th order, *Tripetaloideæ*. See BOTANY *Index*.

JUNE, the sixth month of the year, during which the sun enters the sign of Cancer. The word comes from

June || Junius.

from the Latin *Junius*, which some derive *à Junone*. Ovid, in the 6th of his *Fasti*, makes the goddess say,

Junius à nostro nomine nomen habet.

Others rather derive it *à junioribus*, this being for young people as the month of May was for old ones.

Junius est juvenum; qui fuit antè senum.

In this month is the summer solstice.

JUNGERMANNIA, a genus of plants of the natural order of algæ, and belonging to the cryptogamia class. See BOTANY *Index*.

JUNGIA, a genus of plants belonging to the syngenesia class. See BOTANY *Index*.

JUNIPERUS, the JUNIPER TREE; a genus of plants belonging to the moncœcia class; and in the natural method ranking under the 51st order, *Coniferæ*. See BOTANY *Index*.

JUNIUS, ADRIAN, one of the most learned men of the age in which he lived, was born at Hoorn in Holland in 1511. He travelled into all parts of Europe, and practised physic with reputation in England, where, among other works, he composed a Greek and Latin Lexicon, to which he added above 6500 words; an Epithalamium on the marriage of Queen Mary with King Philip of Spain; and *Animadversa et de Coma Commentarius*, which is the most applauded of all his works. He died in 1575.

JUNIUS, *Francis*, professor of divinity at Leyden, was born at Bourges in 1545, of a noble family, and studied some time at Lyons. Bartholomew Aneau, who was principal of the college in that city, gave him excellent instructions with regard to the right method of studying. He was remarkable for being proof against all temptations to lewdness; but a libertine so far overpowered him by his sophistry, that he made him an atheist: however, he soon returned to his first faith; and, averse as he was to unlawful love, he had no aversion to matrimony, but was married no less than four times. He was employed in public affairs by Henry IV.; and at last was invited to Leyden to be professor of divinity; which employment he discharged with honour, till he was snatched away by the plague in 1602. Lu Pin says, he was a learned and judicious critic. He wrote, in conjunction with Emmanuel Tremellius, a Latin version of the Hebrew text of the Bible. He also published Commentaries on a great part of the Holy Scriptnres; and many other works, all in Latin.

JUNIUS, *Francis* or *Francis du Jon*, the son of the preceding, was born at Heidelberg in 1589. He at first designed to devote himself to a military life; but after the truce concluded in 1609, he applied himself entirely to study. He came to England in 1620, and lived 30 years in the earl of Arundel's family. He was greatly esteemed not only for his profound erudition, but also for the purity of his manners; and was so passionately fond of the study of the northern languages, that being informed there were some villages in Friesland where the ancient language of the Saxons was preserved, he went and lived two years in that country. He returned to England in 1675; and after spending a year at Oxford, retired to Windsor, in order to visit Vossius, at whose house he died in 1677. The university of Oxford, to which he bequeathed his manuscripts, erected a very handsome monument to his memory. He wrote, 1. *De Pictura Veterum*, which is admired by all the learned; the best edition of it is that of Rotterdam in 1694. He published the same work at London in English. 2. An explication of the old Gothic manuscript, called the *Silver* one, because the four Gospels are there written in silver Gothic letters; this was published with notes by Thomas Mareschal or Marshal. 3. A large commentary on the Harmony of the four Gospels by Tatian, which is still in manuscript. 4. A Glossary in five languages, in which he explains the origin of the Northern languages; published at Oxford in 1745, in folio, by Mr Edward Lee.

Junius || Junonalia.

JUNK, in sea language, a name given to any remnants or pieces of old cable, which is nsually cut into small portions, for the purpose of making points, matts, gaskets, sennit, &c.

JUNO, in Pagan worship, was the sister and wife of Jupiter, and the goddess of kingdoms and riches; and also styled the *queen of heaven:* she presided over marriage and childbirth, and was represented as the daughter of Saturn and Rhea. She married Jupiter; but was not the most complaisant wife: for according to Homer, that god was sometimes obliged to make use of all his authority to keep her in due subjection; and the same author observes, that on her entering into a conspiracy against him, he punished her by suspending her in the air with two anvils fastened to her feet, and golden manacles on her hands, while all the other deities looked on without a possibility of helping her. However, her jealousy made her frequently find opportunities of interrupting her husband in the course of his amours; and prompted her to punish with unrelenting fury Europa, Semele, Io, Latona, and the rest of his mistresses. Jupiter himself having conceived without any commerce with a female, Juno, in revenge, conceived Vulcan by the wind, Mars by touching a flower pointed out to her by the goddess Flora, and Hebe by eating greedily of lettuces.

Juno, as the queen of heaven, preserved great state: her usual attendants were Terror and Boldness, Castor, Pollux, and 14 nymphs; but her most faithful attendant was the beautiful Iris, or the rainbow. Homer describes her in a chariot adorned with precious stones, the wheels of which were of ebony, and which was drawn by horses with reins of gold. But she is more commonly painted drawn by peacocks. She was represented in her temple at Corinth, seated on a throne, with a crown on her head, a pomegranate in one hand, and in the other a sceptre with a cuckoo on its top. This statue was of gold and ivory.

Some mythologists suppose that Juno signifies the air: others, that she was the Egyptian Isis; who being represented under various figures, was by the Greeks and Romans represented as so many distinct deities.

JUNONALIA, a festival observed by the Romans in honour of Juno. It was instituted on account of certain prodigies that happened in Italy, and was celebrated by matrons. In the solemnity two white cows were led from the temple of Apollo into the city through the gate called *Carmentalis*, and two images of Juno, made of cypress, were borne in procession. Then marched 27 girls, habited in long robes, singing a hymn to the goddess; then came the decemviri, crowned

Junonalia || Jupiter.

ed with laurel, in vestments edged with purple. This pompous company, going through the *Vicus Jugarius*, had a dance in the great field of Rome; from thence they proceeded through the *Forum Boarium* to the temple of Juno, where the victims were sacrificed by the decemviri, and the cypress images were left standing. This festival is not mentioned in the *fasti* of Ovid, but is fully described by Livy, lib. vii. dec. 3. The hymn used upon the occasion was composed by Livius the poet.

JUNTO, in matters of government, denotes a select council for taking cognizance of affairs of great consequence, which require secrecy.

In Spain and Portugal, it signifies much the same with convention, assembly, or board, among us: thus we meet with the junto of the three estates, of commerce, of tobacco, &c. See BOARD, &c.

IVORY, in *Natural History*, &c. a hard, solid, and firm substance, of a white colour, and capable of a very good polish. It is the tusk of the elephant; and is hollow from the base to a certain height, the cavity being filled up with a compact medullary substance, seeming to have a great number of glands in it. It is observed, that the Ceylon ivory, and that of the island of Achem, do not become yellow in the wearing, as all other ivory does; for this reason the teeth of these places bear a larger price than those of the coast of Guinea.

Hardening, Softening, and Staining of IVORY. See BONES and HORNS.

JUPITER, the supreme god of the ancient Pagans. The theologists, according to Cicero, reckoned up three Jupiters; the first and second of whom were born in Arcadia: of these two, the one sprang from Æther, the other from Cœlus. The third Jupiter was the son of Saturn, and born in Crete, where they pretended to show his sepulchre. Cicero in other places speaks of several Jupiters who reigned in different countries. The Jupiter, by whom the poets and divines understand the supreme god, was the son of Saturn king of Crete. He would have been devoured by his father as soon as born, had not his mother Rhea subsituted a stone instead of the child, which Saturn immediately swallowed. Saturn took this method to destroy all his male children, because it had been foretold by Cœlus and Terra, that one of his sons should deprive him of his kingdom. Jupiter, being thus saved from his father's jaws, was brought up by the Curetes in a den on Mount Ida. Virgil tells us, that he was fed by the bees; out of gratitude for which, he changed them from an iron to a golden colour. Some say, that his nurses were Amalthæa and Melissa, who gave him goats milk and honey; and others, that Amalthæa was the name of the goat which nourished him, and which, as a reward for her great services, was changed into a constellation. According to others, he was fed by wild pigeons, who brought him ambrosia from Oceanus; and by an eagle, who carried nectar in his beak from a steep rock: for which he rewarded the former, by making them the foretellers of winter and summer; and the last by giving him immortality, and making him his thunderbearer. When grown up, he drove his father out of heaven, and divided the empire of the world with his brothers. For himself, he had heaven and earth. Neptune had the sea and waters; and Pluto hell. The Titans undertook to destroy Jupiter, as he had done his father. These Titans were giants, the sons of Titan and the Earth. They declared war against Jupiter, and heaped mountains upon mountains, in order to scale heaven: but their efforts were unsuccessful, Jupiter overthrew them with his thunder, and shut them up under the waters and mountains, from which they were not able to get out. Jupiter.

Jupiter had several wives: the first of whom, named *Metis*, he is said to have devoured when big with child, by which he himself became pregnant; and Minerva issued out of his head, completely armed and fully grown. His second was Themis; the name of his third is not known; his fourth was the celebrated Juno, whom he deceived under the form of a cuckoo, which to shun the violence of a storm fled for shelter to her lap. He was the father of the Muses and Graces; and had a prodigious number of children by his mistresses. He metamorphosed himself into a satyr to enjoy Antiope; into a bull, to carry off Europa; into a swan, to abuse Leda; into a shower of gold, to corrupt Danäe; and into several other forms to gratify his passions. He had Bacchus by Semele, Diana and Apollo by Latona, and was the father of Mercury and the other gods.

The heathens in general believed that there was but one supreme God; but when they considered this one great being as influencing the affairs of the world, they gave him as many different names: and hence proceeded their variety of nominal gods. When he thundered or lightened, they called him *Jupiter;* when he calmed the sea, *Neptune;* when he guided their councils, *Minerva;* and when he gave them strength in battle, *Mars*. In process of time they used different representations of this Jupiter, &c. and considered them, vulgarly at least, as so many different persons. They afterward regarded each of them in different views: *e. g.* The Jupiter that showered down blessings was called the *Kind Jupiter;* and when punishing, the *Terrible Jupiter*. There was also one Jupiter for Europe, and another for Africa; and in Europe, there was one great Jupiter who was the particular friend of the Athenians, and another who was the special protector of the Romans; nay, there was scarce a town or hamlet perhaps, in Italy, that had not a Jupiter of its own: and the Jupiter of Terracina or Jupiter Anxur, represented in medals as young and beardless, with rays round his head, more resembled Apollo than the great Jupiter at the Capitol. In this way Jupiter at length had temples and different characters almost everywhere: at Carthage, he was called *Ammon;* in Egypt, *Serapis;* at Athens, the great Jupiter was the Olympian Jupiter; and at Rome the greatest Jupiter was the Capitoline Jupiter, who was the guardian and benefactor of the Romans, and whom they called the "best and greatest Jupiter;" *Jupiter optimus maximus*. The figure of this Jupiter was represented in his chief temple on the Capitoline hill, as sitting on a curule chair; with the fulmen or thunder, or rather lightning in one hand, and a sceptre in the other. This fulmen in the figures of the old artists was always adapted to the character under which they were to represent Jupiter. If his appearance was to be mild and calm, they gave him the comic fulmen or

Jupiter. bundle of flames wreathed close together, held down in his hand: When punishing, he holds up the same figure, with two transverse darts of lightning, sometimes with wings added to each side of it, to denote its swiftness; this was called by the poets the three-forked bolt of Jove: and when he was going to do some exemplary execution, they put in his hand a handful of flames, all let loose in their utmost fury; and sometimes filled both his hands with flames. The superiority of Jupiter was principally manifested in that air of majesty which the ancient artists endeavoured to express in his countenance: particular attention was paid to the head of hair, the eyebrows, and the beard. There are several heads of the mild Jupiter on ancient seals; where his face has a mixture of dignity and ease in it, admirably described by Virgil, Æn. i. ver. 256. The statues of the Terrible Jupiter were generally of black marble, as those of the former were of white: the one sitting with an air of tranquillity; the other standing, more or less disturbed. The face of the one is pacific and serene; of the other angry or clouded. On the head of the one the hair is regular and composed; in the other it is so discomposed, that it falls half way down the forehead. The face of the Jupiter Tonans resembles that of the Terrible Jupiter; he is represented on gems and medals as holding up the triple bolt in his right hand, and standing in a chariot which seems to be whirled on impetuously by four horses. Thus he is also described by the poets. Ovid, Deian. Herc. v. 28.; Horace, lib. i. od. 4. v. 8. Jupiter, as the intelligence presiding over a single planet, is represented only in a chariot and pair: on all other occasions, if represented in a chariot, he is always drawn by four horses. Jupiter is well known as the chief ruler of the air, whose particular province was to direct the rains, the thunders, and the lightnings. As the dispenser of rain, he was called *Jupiter Pluvius;* under which character he is exhibited seated in the clouds, holding up his right hand, or extending his arms almost in a straight line each way, and pouring a stream of hail and rain from his right hand upon the earth; whilst the fulmen is held down in his left. The wings that are given him relate to his character of presiding over the air: his hair and beard in the Antonine pillar are all spread down by the rain, which descends in a sheet from him, and falls for the refreshment of the Romans; whilst their enemies are represented as struck with the lightnings, and lying dead at their feet.

Some consider a great part of the fable of Jupiter to include the history of Noah and his three sons; and that Saturn is Noah, who saw all mankind perish in the waters of the deluge; and who, in some sort, swallowed them up, by not receiving them into the ark. Jupiter is Ham; Neptune, Japheth; and Shem, Pluto.

The Titans, it is thought, represent the old giants, who built the tower of Babel, and whose pride and presumption God had confounded, by changing their language, and pouring out the spirit of discord and division among them. The name of *Jupiter*, or *Jovis Pater*, is thought to be derived from Jehovah, pronounced with the Latin termination *Jovis* instead of *Jova;* and in medals we meet with *Jovis* in the nominative, as well as oblique cases: for example, *Jovis custos, Jovis propugnator, Jovis stator.* To the name *Jovis* was added *pater;* and afterwards, instead of "Jovis pater," *Jupiter* was used by abbreviation. Jupiter, Jura.

The name *Jupiter* was not known to the Hebrews till the reign of Alexander the Great, and the kings his successors. Antiochus Epiphanes commanded the idol of Jupiter Olympius to be placed in the temple at Jerusalem; and that of Jupiter the defender of strangers in the temple on Mount Gerizim, 2 Macc. vi. 2. While St Paul and St Barnabas were at Lystra, they were taken for gods, because they cured one who had been lame from his birth, and that by an expression only; St Paul was taken for Mercury, by reason of his eloquence; and St Barnabas for Jupiter (Acts xiv. 11. 12.), on account probably of his good mien.

JUPITER, ♃, in *Astronomy*, one of the superior planets, remarkable for its brightness; and which by its proper motion seems to revolve round the earth in about twelve years. See ASTRONOMY *Index.*

JURA, one of the Hebrides, or Western Islands of Scotland, lying opposite to Knapdale in Argyleshire, is supposed to be about 34 miles long and 10 broad. It is the most rugged of all the Hebrides; and is composed chiefly of vast mountains, naked, and without a possibility of cultivation. Some of the south and western sides only are improveable, and in good seasons as much bear and oats are raised as will maintain the inhabitants; though by the distillation, as Mr Pennant supposes, of their grain, they sometimes want. Bear produces four or five fold, and oats threefold. Sloes are the only fruits of the island; besides the berries of the mountain-ash, from which an acid for punch is obtained, and a kind of spirit is also distilled. Necessity hath instructed the inhabitants in the use of native dyes. Thus the juice of the tops of heath boiled supplies them with a yellow; the roots of the white water lily with a dark brown; those of the yellow water iris with a black; and the *galium verum, ru* of the islanders, with a very fine red, not inferior to madder. On the hills is some pasture for cattle; and the produce, when Mr Pennant visited the island, amounted to about 300 or 400 head of black cattle, sold annually at 3l. each; in 1805, the number of black cattle annually exported amounted to 500, which bring at an average 8l. each; and about 1000 sheep, which bring 1l. each; but goats are less numerous than formerly: about 100 horses are also sold annually. The other animals of Jura are about 100 stags; though these must formerly have been much more numerous, as the original name of the island was *Deir-ay*, or the *isle of deer*, so called by the Norwegians on account of the abundance of deer found in it. Here also Mr Pennant had some obscure account of a worm that, in a less pernicious degree, resembles the *Furia infernalis* of Linnæus. The *fillan*, a little worm of Jura, small as a thread, and not an inch in length, insinuates itself under the skin, causes a redness and great pain, flies swiftly from place to place; but is cured by a poultice of cheese and honey. Of the mountains of Jura, those from their shape called the *paps*, are the most remarkable. There are only three very large ones: the biggest called *Beinn-an-oir*, or the *mountain of gold*, lies farthest to the north; the second is called *Beinn-sheunta*, or the *hallowed mountain;* and the third, *Beinn-a-chaolois*, or the *mountain of the sound*, is the least of the three. Mr Pennant

Jura. Pennant ascended the first with great labour and difficulty. It is composed of vast stones, covered with moss near the base; but all above bare, and unconnected with each other. The whole, he says, seems a *cairn*, the work of the sons of Saturn. The grandeur of the prospect from the top abundantly made amends for the fatigue of ascending the mountain. Jura itself afforded a stupendous scene of rock, varied with innumerable little lakes. From the west side of the hill ran a narrow stripe of rock terminating in the sea, and called *the slide of the old hag*. To the south appeared Ilay extended like a map beneath his feet; and beyond that the north of Ireland; to the east two other islands, Cantyre, Arran, and the frith of Clyde bounded by Ayrshire; an amazing tract of mountains to the north-east as far as Benlomond; Skarba finished the northern view; and over the western ocean were scattered Colonsay and Oransay, Mull, Iona, and its neighbouring isles; and still further, the long extents of Tirey and Col, just apparent. The other paps are seen very distinctly, but all of them inferior in height. Mr Banks and his friends mounted that to the south, and found the height to be 2359 feet; but this is far overtopped by Beinn-an-oir. The stones of this mountain are white, a few red, quartzy, and composed of small grains; but some are *brecciated*, or filled with crystalline kernels of an amethystine colour. The other stones of the island are, a cinereous slate, veined with red, and used here as a whetstone; a micaceous sandstone; and between the small isles and Arfin, a micaceous quartzy rock-stone. On the west side of the island there is an anchoring place called *Whitfarlan;* towards the north end is a bay called *Da'l yaul;* and on the same coast is formed another riding place for vessels among several small islands. Between the north end of Jura and the small isle of Skarba, there is a famous whirlpool, called *Cory Bhrecan*, from Brecan son to a king of Denmark, who perished in this gulf. His body being cast ashore on the north side of Jura, was buried in a cave, and his grave is still distinguished by a tombstone and altar. In this vortex, which extends about a mile in breadth, the sea begins to boil and ferment with the tide of flood, increasing gradually to a number of whirlpools, which, in the form of pyramids, spout up the water, with a great noise, as high as the mast of a small vessel, agitated into such a foam as makes the sea appear white even at the distance of two leagues. About half-flood the violence begins to decrease, and continues to do so till about half an hour after high water: then it boils as before, till within an hour of low water, when the smallest fishing boat may cross it without danger.

Jura is furnished with many rivulets and springs of excellent water, and the air is remarkably healthy; its salubrity being increased by the high situation, perpetually fanned by breezes. It is, however, but ill peopled; and did not contain above 700 or 800 inhabitants at the time it was visited by Mr Pennant. The number in 1805 has increased to 1100. The women are prolific, and very often bear twins. The inhabitants live to a great age, and are liable to few distempers. Men of 90 can work; and there was living in Pennant's time a woman of 80, who could run down a sheep. The inhabitants are all Protestants, but addicted to some superstitions. The parish is supposed to be the largest in Great Britain, and the duty the most dangerous and troublesome: it consists of Jura, Oransay, Colonsay, Skarba, and several little isles divided by narrow and dangerous sounds; forming a length of not less than 60 miles; supplied by only one minister and an assistant. Jura || Ivrea.

The very old clans of Jura are the *Macilvuys* and the *Macraines;* but it seems to have changed masters more than once. In 1549, Donald of Cantyre, Macguillayne of Doward, Macguillayne of Kinlochbuy, and Macduffie of Colonsay were the proprietors; Maclean of Mull had also a share in 1586. Mr Campbell of Jura, and Mr Macneil of Colonsay, are now (1807) the only proprietors of this island; but by far the greatest part belongs to the former.

JURA is also the name of a chain of mountains in Switzerland, beginning in the canton of Zurich, extending from thence along the Rhine into the canton and bishopric of Basle, stretching into the canton of Soleure and the principality of Neuchatel, and branching out towards the Pays de Vaud; separating that country from Franche Compte and Burgundy, and continued beyond the Genevan territories as far as the Rhone. Many elevated valleys are formed by different parts of this chain in the country of the Pays de Vaud; among which one of the most remarkable is the valley of the lake of Joux, on the top of that part of the chain named *Mont Joux*. It contains several populous villages, and is beautifully diversified with wood, arable land, and pasture. It is watered by two lakes; the largest of which is that of Joux already mentioned. This has one shore of a high rock covered with wood; the opposite banks forming a gentle ascent, fertile and well cultivated; behind which is a ridge covered with pines, beech, and oak wood. The smaller lake, named *Brenet*, is bordered with fine corn fields and villages; and the stream which issues from it is lost in a gulf named *Entonnoir*, or the *Funnel*, where the people have placed several mills. The valley contains about 3000 inhabitants, remarkable for their industry. Some are watchmakers; but the greatest number employ themselves in polishing crystals, granites, and marcasites. The country is much infested with bears and wolves. In ascending to this place there is a very extensive prospect of great part of the Pays de Vaud, the lake of Geneva, and that of Neuchatel, which from that high point of view appear to be nearly on a level; though M. de Luc found the latter to be 159 feet above the level of the lake of Geneva.

JURA, a department in the east of France. It takes its name from Mount Jura, and contains 2050 square miles, and 300,000 inhabitants. It is rather hilly in general, but yields corn, wine, hemp, maize, and has mines of iron, copper, lead, and pit-coal. Lons le Saulnier is the chief town.

JURATS, JURATI, magistrates in the nature of ALDERMEN, for the government of several corporations. Thus we meet with the mayor and jurats of Maidstone, Rye, Winchelsea, &c.—So also Jersey has a bailiff and twelve jurats, or sworn assistants, to govern the island.

IVREA, an ancient and strong town of Italy, in Piedmont, and capital of Canavez, with a strong fort,

Ivrea || Jurisconsultus.

a bishop's see, the title of a marquisate, and an ancient castle. It is subject to the king of Sardinia, and seated on the river Doria between two hills, in E. Long. 7. 48. N. Lat. 45. 12.

JURIEU, PETER, an eminent French Protestant divine, called ironically by the Papists the *Goliath* of the Protestants, was born in 1637. He was educated in England under his maternal uncle Peter du Moulin, and took orders in the English church; but returning to succeed his father as pastor of a reformed congregation at Mer in the diocese of Blois, he was made professor of divinity and Hebrew at Sedan, where he acquired great reputation. This university being taken from the Protestants, a professorship of divinity was founded for him at Rotterdam; and he was also appointed minister of the Walloon church in the same town. Being now in a place of liberty, he gave full scope to an imagination naturally warm, and applied himself to study the book of Revelation, of which he fancied he had by a kind of inspiration discovered the true meaning; a notion that led him to many enthusiastical conjectures. He was moreover so unfortunate as to quarrel with his best friends for opposing his visionary opinions, which produced violent disputes between him and Messrs Bayle and de Beauval. He died in 1713; and left a great number of esteemed works behind him.

JURIN, DR JAMES, a distinguished person, who cultivated medicine and mathematics with equal success. He was secretary of the Royal Society in London, as well as president of the College of Physicians there. He had great disputes with Michelotti upon the moment of running waters, with Robins upon distinct vision, and with the partizans of Leibnitz upon moving bodies. A treatise of his "upon Vision" is printed in Smith's "Optics." He died in 1750.

JURISCONSULTUS (*ICtus*), among the Romans, was a person learned in the law; a master of the Roman jurisprudence; who was consulted on the interpretation of the laws and customs, and on the difficult points in law suits. The fifteen books of the Digests were compiled wholly from the answers or reports of the ancient jurisconsulti. Tribonianus, in destroying the 2000 volumes from whence the Code and Digest were taken, has deprived the public of a world of things which would have given them light into the ancient office of the jurisconsulti. We should scarcely have known any thing beyond their bare names, had not Pomponius, who lived in the second century, taken care to preserve some circumstances of their office.

The Roman jurisconsulti seem to have been the same with our chamber counsellors, who arrived at the honour of being consulted through age and experience, but never pleaded at the bar. Their pleading advocates or lawyers never became jurisconsulti. See ADVOCATE.

In the times of the commonwealth, the advocati had by much the more honourable employment, as being in the ready way to attain the highest preferments. They then despised the jurisconsulti, calling them in derision *formularii* and *legulei*, as having invented certain forms and monosyllables, in order to give their answers the greater appearance of gravity and mystery. But in process of time they became so much esteemed, that they were called *prudentes* and *sapientes*, and the emperors appointed the judges to follow their advice. Augustus advanced them to be public officers of the empire; so that they were no longer confined to the petty councils of private persons.—Bern. Rutilius has written the lives of the most famous jurisconsulti who have lived within these 2000 years.

Jurisconsultus || Jus.

JURISDICTION, a power or authority which a man has to do justice in cases of complaint made before him. There are two kinds of jurisdiction, the one *ecclesiastical*, the other *secular*.

Secular JURISDICTION belongs to the king and his justices or delegates. The courts and judges at Westminster have jurisdiction all over England, and are not restrained to any county or place; but all other courts are confined to their particular jurisdiction, which if they exceed, whatever they do is erroneous. There are three sorts of inferior jurisdictions; the first is *tenere placita*, to hold pleas, and the plaintiff may sue either there or in the king's courts. Another is the conusance of pleas, where a right is invested in the lord of the franchise to hold pleas: and he is the only person that can take advantage of it, by claiming his franchise. The third sort is an exempt jurisdiction, as where the king grants to some city, that the inhabitants shall be sued within their city, and not elsewhere; though there is no jurisdiction that can withstand a *certiorari* to the superior courts.

Ecclesiastical JURISDICTION belongs to bishops and their deputies.

Bishops, &c. have two kinds of jurisdiction; the one *internal*, which is exercised over the conscience in things purely spiritual; and this they are supposed to hold immediately of God.

The other is *contentious*, which is a privilege some princes have given them of terminating disputes between ecclesiastics and laymen.

JURISPRUDENCE, the science of what is just or unjust; or the knowledge of laws, rights, customs, statutes, &c. necessary for the administration of justice. See LAW.

JUROR, JURATOR, in a legal sense, is one of those twenty-four or twelve men who are sworn to deliver truth upon such evidence as shall be given them touching any matter in question. The punishment of petty jurors attainted of giving a verdict contrary to evidence, willingly, is very severe.

JURY, a certain number of men sworn to inquire into and try a matter of fact, and to declare the truth upon such evidence as shall appear before them.

Juries are, in these kingdoms, the supreme judges in all courts and in all causes in which either the life, property, or reputation, of any man is concerned: this is the distinguishing privilege of every Briton, and one of the most glorious advantages of our constitution; for as every one is tried by his peers, the meanest subject is as safe and as free as the greatest. See the article TRIAL.

Jury Mast, whatever is set up in room of a mast that has been lost in a storm or an engagement, and to which a lesser yard, ropes, and sails, are affixed.

JUS CORONÆ. See *Hereditary Right*, and SUCCESSION.

Jus || Just.

Jus Deliberandi, in *Scots Law*, that right which an heir has by law of deliberating for a certain time whether he will represent his predecessor.

Jus Devolutum, in *Scots Law*, the right of the church, of presenting a minister to a vacant parish, in case the patron shall neglect to use that right within the time limited by law.

Jus Mariti, in *Scots Law*, the right the husband acquires to his wife's moveable estate, in virtue of the marriage.

Jus Relicta, in *Scots Law*, the right the wife has in the goods in communion, in case of the previous decease of the husband.

Jus Preventionis, in *Scots Law*, the preferable right of jurisdiction acquired by a court, in any cause to which other courts are equally competent, by having exercised the first act of jurisdiction.

Jus Civile, amongst the Romans, signified no more than the interpretation given by the learned, of the laws of the twelve tables, though the phrase now extends to the whole system of the Roman laws.

Jus Civitatis, signifies freedom of the city of Rome, which entitled those persons who had obtained it to most of the privileges of Roman citizens—yet it differs from *Jus Quiritum*, which extends to *all* the advantages which a free native of Rome was entitled to—the difference is much the same as betwixt *denization* and *naturalization* with us.

Jus Honorarium, was a name given to those Roman laws which were made up of edicts of the supreme magistrates, particularly the *prætors*.

Jus Imaginis, was the right of using pictures and statues amongst the Romans, and had some resemblance to the right of bearing a coat of arms amongst us. This honour was allowed to none but those whose ancestors or themselves had borne some *curule office*, that is, had been *Curule Ædile*, *Censor*, *Prætor*, or *Consul*.

The use of statues, &c. which the *Jus Imaginis* gave, was the exhibiting them in funeral processions, &c. See IMAGE.

Jus Papirianum, was the laws of Romulus, Numa, and other kings of Rome, collected into a body by Sextus Papirius, who lived in the time of Tarquin the Proud; which accounts for the name.

Jus Trium Liberorum, was a privilege granted to such persons in the city of Rome as had three children, by which they were exempted from all troublesome offices. The same exemption was granted to any person who lived in other parts of Italy, having four children; and those that lived in the provinces, provided they had five (or as some say seven) children, were entitled to the same immunities. This was good policy, and tended to the population of the empire. For a further account of these privileges, see CHILDREN.

JUSSICA, a genus of plants belonging to the decandria class; and in the natural method ranking under the 17th order, *Calycanthemæ*. See BOTANY *Index*.

JUST, a sportive kind of combat on horseback, man against man, armed with lances. The word is by some derived from the French *jouste*, of the Latin *juxta*, because the combatants fought near one another. Salmasius derives it from the modern Greek *zoustra*, or rather τζουστρα, which is used in this sense by Nicephorus Gregorius. Others derive it from *justa*, which in the corrupt age of the Latin tongue was used for this exercise, by reason it was supposed a more just and equal combat than the tournament.

Just, Justice.

The difference between justs and tournaments consists in this, that the latter is the genus, of which the former is only a species. Tournaments included all kinds of military sports and engagements made out of gallantry and diversions: Justs were those particular combats where the parties were near each other, and engaged with lance and sword. Add, that the tournament was frequently performed by a number of cavaliers, who fought in a body: The just was a single combat of one man against another.—Though the justs were usually made in tournaments after a general rencounter of all the cavaliers, yet they were sometimes singly, and independent of any tournament. See TOURNAMENT.

He who appeared for the first time at a just, forfeited his helm or casque unless he had forfeited before at a tournament.

JUSTICE, in a moral sense, is one of the four cardinal virtues, which gives every person his due.

Civilians distinguish justice into two kinds: *communicative* and *distributive*. The former establishes fair dealing in the mutual commerce between man and man; and includes sincerity in our discourse, and integrity in our dealings. The effect of sincerity is mutual confidence, so necessary among the members of the same community; and this mutual confidence is sustained and preserved by the integrity of our conduct.

Distributive justice is that by which the differences of mankind are decided, according to the rules of equity. The former is the justice of private individuals; the latter of princes and magistrates.

Fidelity and truth are the foundation of justice. As to be perfectly just is an attribute of the Divine Nature, to be so to the utmost of our ability is the glory of man.

The following examples of this virtue are extracted from various authors.

1. Among the several virtues of Aristides, that for which he was most renowned was justice; because this virtue is of most general use, its benefits extending to a greater number of persons, as it is the foundation, and in a manner the soul, of every public office and employment. Hence it was that Aristides, though in low circumstances, and of mean extraction, obtained the glorious surname of the *Just*; a title, says Plutarch, truly royal, or rather truly divine: but of which princes are seldom ambitious, because generally ignorant of its beauty and excellency. They choose rather to be called the conquerors of cities and the thunderbolts of war, preferring the vain honour of pompous titles, which convey no other idea than violence and slaughter, to the solid glory of those expressive of goodness and virtue. How much Aristides deserved the title given him, will appear in the following instances; though it ought to be observed, that he acquired it not by one or two particular actions, but by the whole tenor of his conduct.

Themistocles having conceived the design of supplanting the Lacedæmonians, and of taking the government of Greece out of their hands, in order to put it into those of the Athenians, kept his eye and his thoughts

Justice. thoughts continually fixed upon that great project; and as he was not very nice or scrupulous in the choice of his measures, whatever tended towards the accomplishing of the end he had in view he looked upon as just and lawful.

On a certain day then he declared in a full assembly of the people, that he had a very important design to propose; but that he could not communicate it to the people, because its success required it should be carried on with the greatest secrecy: he therefore desired they would appoint a person to whom he might explain himself upon the matter in question. Aristides was unanimously fixed upon by the whole assembly, who referred themselves entirely to his opinion of the affair; so great a confidence had they both in his probity and prudence. Themistocles, therefore, having taken him aside, told him that the design he had conceived was to burn the fleet belonging to the rest of the Grecian states, which then lay in a neighbouring port; and by this means Athens would certainly become mistress of all Greece. Aristides hereupon returned to the assembly, and only declared to them that indeed nothing could be more advantageous to the commonwealth than Themistocles's project, but that at the same time nothing in the world could be more unjust. All the people unanimously ordained that Themistocles should entirely desist from his prospect.

There is not perhaps in all history a fact more worthy of admiration than this. It is not a company of philosophers (to whom it costs nothing to establish fine maxims and sublime notions of morality in the school) who determine on this occasion that the consideratios of profit and advantage ought never to prevail in preference to what is honest and just; but the whole people who are highly interested in the proposal made to them, that are convinced it is of the greatest importance to the welfare of the state, and who, however, reject it with unanimous consent, and without a moment's hesitation; and for this only reason, that it is contrary to justice. How black and perfidious, on the other hand, was the design which Themistocles proposed to them, of burning the fleet of their Grecian confederates at a time of entire peace, solely to aggrandize the power of the Athenians! Had he a hundred times the merit ascribed to him, this single action would be sufficient to sully all his glory; for it is the heart, that is to say, integrity and probity, which constitutes and distinguishes true merit.

2. The government of Greece having passed from Sparta to the Athenians, it was thought proper under this new government to lodge in the isle of Delos the common treasure of Greece; to fix new regulations with regard to the public money; and to lay such a tax as might be regulated according to the revenue of each city and, state, in order that the expences being equally borne by the several individuals who composed the body of the allies, no one might have reason to murmur. The difficulty was to find a person of so honest and incorrupt a mind, as to discharge faithfully an employment of so delicate and dangerous a kind, the due administration of which so nearly concerned the public welfare. All the allies cast their eyes on Aristides; accordingly they invested him with full powers, and appointed him to levy a tax on each of them, relying entirely on his wisdom and justice. The citizens had no cause to repent their choice. Justice. He presided over the treasury with the fidelity and disinterestedness of a man who looks upon it as a capital crime to embezzle the smallest portion of another's possessions, with the care and activity of a father of a family in the management of his own estate, and with the caution and integrity of a person who considers the public money as sacred. In fine, he succeeded in what is equally difficult and extraordinary, viz. to acquire the love of all in an office in which he who escapes the public odium gains a great point. Such is the glorious character which Seneca gives of a person charged with an employment of almost the same kind, and the noblest eulogium that can be given to such as administer public revenues. It is the exact picture of Aristides. He discovered so much probity and wisdom in the exercise of this office, that no man complained; and those times were considered ever after as the golden age; that is, the period in which Greece had attained the highest pitch of virtue and happiness.

While he was treasurer-general of the republic, he made it appear that his predeccssors in that office had cheated the state of vast sums of money, and among the rest Themistocles in particular; for this great man with all his merit, was not irreproachable on that head; for which reason, when Aristides came to pass his account, Themistocles raised a mighty faction against him, accused him of having embezzled the public treasure, and prevailed so far as to have him condemned and fined. But the principal inhabitants, and the most virtuous part of the citizens, rising up against so unjust a sentence, not only the judgement was reversed and the fine remitted, but he was elected treasurer again for the year ensuing. He then seemed to repent of his former administration: and by showing himself more tractable and indulgent towards others, he found out the secret of pleasing all that plundered the commonwealth; for as he neither reproved them nor narrowly inspected their accounts, all these plunderers, grown fat with spoil and rapine, now extolled Aristides to the skies. It would have been easy for him, as we perceive, to have enriched himself in a post of that nature, which seems, as it were, to invite a man to it by the many favourable opportunities it lays in his way; especially as he had to do with officers, who for their part were intent upon nothing but robbing the public, and would have been ready to conceal the frauds of the treasurer their master, upon condition he did them the same favour. These very officers now made interest with the people to have him continued a third year in the same employment: but when the time of election was come, just as they were on the point of electing Aristides unanimously, he rose up, and warmly reproved the Athenian people: "What (says he), when I managed your treasure with all the fidelity and diligence an honest man is capable of, I met with the most cruel treatment, and the most mortifying returns; and now that I have abandoned it to the mercy of these robbers of the republic, I am an admirable man and the best of citizens! I cannot help declaring to you, that I am more ashamed of the honour you do me this day, than I was of the condemnation you passed against me this time twelvemonths; and with grief I find that it is more glorious with

Justice. with us to be complaisant to knaves than to save the treasures of the republic." By this declaration he silenced the public plunderers and gained the esteem of all good men.

3. In the Universal History we meet with the following remarkable instance of a scrupulous regard to justice in a Persian king named Nouschirvan. Having been out a hunting, and desirous of eating some of the venison in the field, several of his attendants went to a neighbouring village and took away a quantity of salt to season it. The king suspecting how they had acted, ordered that they should immediately go and pay for it. Then turning to his attendants, he said, "This is a small matter in itself, but a great one as it regards me: for a king ought ever to be just, because he is an example to his subjects; and if he swerves in trifles, they will become dissolute. If I cannot make all my people just in the smallest things, I can at least show them it is possible to be so."

These examples to which many more might be added, are highly pleasing to a sagacious and virtuous mind; but the sensual and brutal part of mankind, who regard only the present moment, who see no objects but those which fall under the cognizance of the corporeal eye, and estimate the merit of every action by the gain which it produces, have always considered justice and utility as independent of each other. They put utility in the balance against honesty every day; and never fail to incline the beam in favour of the former, if the supposed advantage is thought to be considerable. They have no regard to justice but as they reckon to gain by it, or at least not to lose; and are always ready to desert it when it exposes them to any danger or threatens them with any loss. From this disposition of mind proceeds that avidity of wealth and that habitual fraud which perpetually embroil civil society: from this fatal source arises that deluge of iniquity which has overflowed the world; from this preference of interest to honesty proceed every unjust litigation and every act of violence. And yet nothing is more certain than that "Whatever is unjust must, upon the whole, be disadvantageous;" which might be proved thus:

Nothing is advantageous or useful but that which has a tendency to render us happy: the highest advantage, or absolute utility, is complete happiness; and to this happiness, whatever is advantageous or useful is relative as to an ultimate end; and nothing that is not thus relative to happiness can properly be said to be advantageous or useful. But whatever is unjust, is so far from tending to promote, that it destroys our happiness; for whatever is unjust is contrary to the Divine will: but it is not possible that we should become happy by resisting that will; because of this will our happiness is the immediate object. God is not a tyrant, proud of uncontroulable power, who imposes capricious laws only as tests of our obedience, and to make us feel the weight of his yoke; all his precepts are lessons which teach us how to be happy. But it is the will of God that we should be just; from whence it follows, that no true happiness can be acquired by those who are unjust. An action, therefore, which is contrary to the will of God, must be inconsistent with our true interest; and consequently, so far from being useful or expedient, it must inevitably produce ruin and misery. Injustice sometimes meets with the punishment it deserves in this world; but if it should escape here, it does not follow that it will for ever escape. It proves, on the contrary, that there is another world in which the fates of mankind will be impartially decided. Justice.

But to prevent the dreadful confusion which the mistaken notion of interest had introduced among mankind, it became necessary to have recourse to the innate principles of justice; to suspend the balance and display the sword, for the determination of differences and the punishment of guilt. This is the reason and origin of distributive justice, which became the necessary appendage of sovereignty. Accordingly, in ancient times, princes administered justice in person and without delay; but at length being embarrassed and oppressed by the multiplicity of business which increased with their dominions, or diverted from their attention to civil government by the command of armies, certain laws were established with great solemnity to adjust and determine the differences which might arise among the members of the same community, and to repress the insolence of those who dared to violate the public peace, by possessing them with the dread either of corporeal punishment or infamy. The execution of these laws was put into the hands of subordinate judges. These delegates of the sovereign power were called magistrates; and these are the persons by whom justice is at this time administered, except in particular cases, in which the sovereign himself interferes. But by whomsoever this kind of justice is administered, it ought to be done speedily, impartially, and without expence to the parties.

4. Aristides being judge between two private persons, one of them declared, that his adversary had greatly injured Aristides. "Relate rather, good friend (said he, interrupting him), what wrong he hath done thee; for it is thy cause, not mine, that I now sit judge of."—Again: Being desired by Simonides, a poet of Chios, who had a cause to try before him, to stretch a point in his favour, he replied, "As you would not be a good poet if your lines ran contrary to the just measures and rules of your art; so I should neither be a good judge nor an honest man if I decided aught in opposition to law and justice."

5. Artabarzanes, an officer of Axtaxerxes king of Persia, begged his majesty to confer a favour upon him; which if complied with would be an act of injustice. The king being informed that the promise of a considerable sum of money was the only motive that induced the officer to make so unreasonable a request, ordered his treasurer to give him thirty thousand dariuses, being a present of equal value with that which he was to have received. Giving him the order for the money, "Here, take (says the king) this token of my friendship for you: a gift of this nature cannot make me poor; but complying with your request would make me poor indeed, for it would make me unjust."

6. Cambyses king of Persia was remarkable for the severity of his government and his inexorable regard to justice. The prince had a particular favourite whom he made a judge; and this judge reckoned himself so secure in the credit he had with his master, that without any more ado causes were bought and sold in the

Justice. the courts of judicature as openly as provisions in the market. But when Cambyses was informed of these proceedings, enraged to find his friendship so ungratefully abused, the honour of his government prostituted, and the liberty and property of his subjects sacrificed to the avarice of his wretched minion, he ordered him to be seized and publickly degraded; after which he commanded his skin to be stripped over his ears, and the seat of judgment to be covered with it as a warning to others. At the same time, to convince the world that this severity proceeded only from the love of justice, he permitted the son to succeed his father in the honours and office of prime minister.

7. When Charles duke of Burgundy, surnamed the *Bold*, reigned over spacious dominions, now swallowed up by the power of France, he heaped many favours and honours upon Claudius Rynsault, a German, who had served him in his wars against the insults of his neighbours. The prince himself was a person of singular humanity and justice; and being prepossessed in favour of Rynsault, upon the decease of the governor of the chief town of Zealand gave him that command. He was not long seated in that government before he cast his eyes upon Sapphira, a woman of exquisite beauty, the wife of Paul Danvelt, a wealthy merchant of the city under his protection and government. Rynsault was a man of a warm constitution, and violent inclination to women. He knew what it was to enjoy the satisfactions which are reaped from the possession of beauty; but was an utter stranger to the decencies, honours, and delicacies, that attend the passion toward them in elegant minds: He could with his tongue utter a passion with which his heart was wholly untouched. In short, he was one of those brutal minds which can be gratified with the violation of innocence and beauty, without the least pity, passion, or love for that with which they are so much delighted.

Rynsault being resolved to accomplish his will on the wife of Danvelt, left no arts untried to get into a familiarity at her house; but she knew his character and disposition too well not to shun all occasions that might ensnare her into his conversation. The governor, despairing of success by ordinary means, apprehended and imprisoned her husband, under pretence of an information that he was guilty of a correspondence with the enemies of the duke to betray the town into their possession. This design had its desired effect; and the wife of the unfortunate Danvelt, the day before that which was appointed for his execution, presented herself in the hall of the governor's house, and as he passed through the apartment threw herself at his feet, and holding his knees, beseeched his mercy. Rynsault beheld her with a dissembled satisfaction; and assuming an air of thought and authority, he bid her rise, and told her she must follow him to his closet; and asking her whether she knew the hand of the letter he pulled out of his pocket, went from her, leaving this admonition aloud: "if you would save your husband, you must give me an account of all you know, without prevarication; for every body is satisfied that he is too fond of you to be able to hide from you the names of the rest of the conspirators, or any other particulars whatsoever." He went to his closet, and soon after the lady was sent for to an audience. The servent knew his distance when matters of state were to be debated; and the governor, laying aside the air with which he had appeared in public, began to be the supplicant, and to rally an affliction which it was in her power easily to remove. She easily perceived his intention; and, bathed in tears, began to deprecate so wicked a design. Lust, like ambition, takes all the faculties of the mind and body into its service and subjection. Her becoming tears, her honest anguish, the wringing of her hands, and the many changes of her posture and figure in the vehemence of speaking, were but so many attitudes in which he beheld her beauty, and farther incentives of his desire. All humanity was lost in that one appetite; and he signified to her in so many plain terms, that he was unhappy till he possessed her, and nothing less should be the price of her husband's life; and she must, before the following noon, pronounce the death or enlargement of Danvelt. After this notification, when he saw Sapphira enough distracted to make the subject of their discourse to common eyes appear different from what it was, he called his servants to conduct her to the gate. Loaded with insupportable affliction, she immediately repairs to her husband, and having signified to the gaolers that she had a proposal to make to her husband from the governor, she was left alone with him, revealed to him all that had passed, and represented the endless conflict she was in between love to his person and fidelity to his bed. It is easy to imagine the sharp affliction this honest pair were in upon such an incident, in lives not used to any but ordinary occurrences. The man was bridled by shame from speaking what his fear prompted upon so near an approach of death; but let fall words that signified to her, he should not think her polluted, though she had not confessed to him that the governor had violated her person, since he knew her will had no part in the action. She parted from him with this oblique permission, to save a life he had not resolution enough to resign for the safety of his honour.

Justice.

The next morning the unhappy Sapphira attended the governor, and being led into a remote apartment, submitted to his desires. Rynsault commended her charms; claimed a familiarity after what had passed between them; and with an air of gaiety, in the language of a gallant, bid her return and take her husband out of prison: but, continued he, my fair one must not be offended that I have taken care he should not be an interruption to our future assignations. These last words foreboded what she found when she came to the gaol, her husband executed by the order of Rynsault.

It was remarkable, that the woman, who was full of tears and lamentations during the whole course of her affliction, uttered neither sigh nor complaint, but stood fixed with grief at this consummation of her misfortunes. She betook herself to her abode; and, after having in solitude paid her devotion to Him who is the avenger of innocence, she repaired privately to court. Her person, and a certain grandeur of sorrow negligent of forms, gained her admittance to the duke her sovereign. As soon as she came into the presence, she broke forth into the following words: "Behold, O mighty Charles, a wretch weary of life, though it has always been spent with innocence and virtue.

Justice. virtue. It is not in your power to redress my injuries, but it is to avenge them; and if the protection of the distressed, and the punishment of oppressors, is a task worthy of a prince, I bring the duke of Burgundy ample matter for doing honour to his own great name, and of wiping infamy off mine." When she had spoken this, she delivered to the duke a paper reciting her story. He read it with all the emotion that indignation and pity could raise in a prince jealous of his honour in the behaviour of his officers and the prosperity of his subjects.

Upon an appointed day Rynsault was sent for to court, and in the presence of a few of the council confronted by Sapphira. The prince asking, "Do you know that lady?" Rynsault, as soon as he could recover his surprise, told the duke he would marry her, if his highness would please to think that a reparation. The duke seemed contented with this answer, and stood by during the immediate solemnization of the ceremony. At the conclusion of it he told Rynsault, "Thus far you have done as constrained by my authority: I shall not be satisfied of your kind usage of her, till you sign a gift of your whole estate to her after your decease." To the performance of this also the duke was a witness. When these two acts were executed, the duke turning to the lady, told her, "It now remains with me to put you in quiet possession of what your husband has so bountifully bestowed on you;" and ordered the immediate execution of Rynsault.

8. One of the greatest of the Turkish princes was Mamood or Mahmud the Gaznevide. His name is still venerable in the east; and of the noble parts of his character a regard to justice was not the least. Of this the following example is related by Mr Gibbon in his *Decline and Fall of the Roman Empire*.—As he sat in the divan, an unhappy subject bowed before the throne to accuse the insolence of a Turkish soldier who had driven him from his house and bed. "Suspend your clamours (said Mahmud); inform me of his next visit, and ourself in person will judge and punish the offender." The sultan followed his guide; invested the house with his guards; and extinguishing the torches, pronounced the death of the criminal who had been seized in the act of rapine and adultery. After the execution of his sentence, the lights were rekindled, and Mahmud fell prostrate in prayer; then rising from the ground, he demanded some homely fare, which he devoured with the voraciousness of hunger. The poor man, whose injury he had avenged, was unable to suppress his astonishment and curiosity; and the courteous monarch condescended to explain the motives of this singular behaviour. "I had reason to suspect that none except one of my sons could dare to perpetrate such an outrage; and I extinguished the lights that my justice might be blind and inexorable. My prayer was a thanksgiving on the discovery of the offender; and so painful was my anxiety, that I had passed three days without food since the first moment of your complaint."

9. In Bourgoanne's Travels in Spain, vol. ii. p. 364. the following anecdote is given of Peter III. of Castile. A canon of the cathedral of Seville, affected in his dress, and particularly in his shoes, could not find a workman to his liking. An unfortunate shoemaker, to whom he applied after quitting many others, having brought him a pair of shoes not made to please his taste, the canon became furious, and seizing one of the tools of the shoemaker, gave him with it so many blows upon the head as laid him dead upon the floor. The unhappy man left a widow, four daughters, and a son 13 years of age, the eldest of the indigent family. They made their complaint to the chapter: the canon was prosecuted, and condemned not to appear in the choir for a year. The young shoemaker having attained to man's estate, was scarcely able to get a livelihood; and overwhelmed with wretchedness, sat down on the day of a procession at the door of the cathedral of Seville in the moment the procession passed by. Amongst the other canons he perceived the murderer of his father. At the sight of this man filial affection, rage, and despair, so far got the better of his reason, that he fell furiously upon the priest, and stabbed him to the heart. The young man was seized, convicted of the crime, and immediately condemned to be quartered alive. Peter, whom we call the *Cruel*, and whom the Spaniards, with more reason, call the *lover of justice*, was then at Seville. The affair came to his knowledge; and after learning the particulars, he determined to be himself the judge of the young shoemaker. When he proceeded to give judgment, he first annulled the sentence just pronounced by the clergy: and after asking the young man what profession he was, "I forbid you (said he) to make shoes for one year to come." Justice.

10. In Gladwin's History of Hindostan, a singular fact is related of the emperor Jehangir, under whose father Akber the Mogul empire in Hindostan first obtained any regular form. Jehangir succeeded him at Agra on the 22d of October, 1605; and the first order which he issued on his accession to the throne was for the construction of the golden chain of *justice*. It was made of pure gold, and measured 30 yards, consisting of 60 links, weighing four maunds of Hindostan (about 400 pounds avoirdupois). One end of this chain was suspended from the royal bastion of the fortress of Agra, and the other fastened in the ground near the side of the river. The intention of this extraordinary invention was, that if the officers of the courts of law were partial in their decisions, or dilatory in the administration of justice, the injured parties might come themselves to this chain; and making a noise by shaking the links of it, give notice that they were waiting to represent their grievances to his majesty.

JUSTICE is also an appellation given to a person deputed by the king to administer justice to his subjects, whose authority arises from his deputation, and not by right of magistracy.

Of these justices there are various kinds in England, viz.

Chief JUSTICE of the King's Bench, is the capital justice of Great Britain, and is a lord by his office. His business is chiefly to hear and determine all pleas of the crown; that is, such as concern offences against the crown, dignity, and peace of the king; as treasons, felonies, &c. This officer was formerly not only chief justice, but also chief baron for the exchequer, and master of the court of wards. He usually sat in the king's palace, and there executed that office, formerly

Justice. merly performed *per comitem palatii;* he determined in that place all the differences happening between the barons and other great men. He had the prerogative of being vicegerent of the kingdom whenever the king went beyond sea, and was usually chosen to that office out of the prime nobility; but his power was reduced by King Richard I. and King Edward I. His office is now divided, and his title changed from *capitalis Angliæ justitiarius*, to *capitalis justitiarius ad placita coram rege tenenda*, or *capitalis justitiarius banci regii.*

Chief JUSTICE *of the Common Pleas*, he who with his assistants hears and determines all causes at the common law; that is to say, all civil causes between common persons, as well personal as real; and he is also a lord by his office.

JUSTICE *of the Forest*, is a lord by his office, who has power and authority to determine offences committed in the king's forests, &c. which are not to be determined by any other court of justice. Of these there are two; whereof one has jurisdiction over all the forests on this side Trent, and the other beyond it.

By many ancient records it appears to be a place of great honour and authority, and is never bestowed but on some person of great distinction. The court where this justice sits, is called the *justice seat of the forest*, held once every three years, for hearing and determining all trespasses within the forest, and all claim of franchises, liberties, and privileges, and all pleas and causes whatsoever therein arising. This court may fine and imprison for offences within the forest, it being a court of record; and therefore a writ of error lies from hence to the court of King's Bench. The last court of justice seat of any note was that held in the reign of Charles I. before the earl of Holland. After the Restoration another was held for form's sake before the earl of Oxford; but since the revolution in 1688, the forest laws have fallen into total disuse, to the great advantage of the subject.

This is the only justice who may appoint a deputy: he is also called *justice in eyre of the forest.*

JUSTICES *of Assize*, were such as were wont by special commission to be sent into this or that county to take assizes for the ease of the subjects. For, whereas these actions pass always by jury, so many men might not without great damage and charge be brought up to London; and therefore justices, for this purpose, by commissions particularly authorized, were sent down to them. These continue to pass the circuit by two and two twice every year through all England, except the four northern counties, where they go only once, dispatching their several businesses by several commissions; for they have one commission to take assizes, another to deliver gaols, and another of oyer and terminer. In London and Middlesex a court of general gaol-delivery is held eight times in the year.

All the justices of peace of any county wherein the assizes are held, are bound by law to attend them, or else are liable to a fine; in order to return recognizances, &c. and to assist the judges in such matters as lie within their knowledge and jurisdiction, and in which some of them have been probably concerned, by way of previous examination. See ASSIZES and JURY.

JUSTICES *in Eyre*, (*justitiarii itinerantes*, or *errantes*), were those who were anciently sent with commission into divers counties to hear such causes especially as were termed *pleas of the crown;* and that for the ease of the subject, who must else have been hurried to the courts of Westminster, if the causes were too high for the county courts. Justice.

According to some, these justices were sent once in seven years; but others suppose that they were sent oftener. Camden says, they were instituted in the reign of King Henry II. A. D. 1184; but they appear to be of an older date.

They were somewhat like our justices of assize at this day, though for authority and manner of proceeding very different.

JUSTICES *of Gaol-Delivery*, those commissioned to hear and determine causes appertaining to such as for any offence are cast into prison. Justices of gaol-delivery are empowered by the common law to proceed upon indictments of felony, trespass, &c. and to order execution or reprieve; and they have power to discharge such prisoners as upon their trials shall be acquitted; also all such against whom, on proclamation made, no evidence appears to indict; which justices of oyer and terminer, &c. may not do. 2 Hawk. 24, 25. But these justices having nothing to do with any person not in the custody of the prison, except in some special cases; as if some of the accomplices to a felony may be in such prison and some of them out of it, the justices may receive an appeal against those who are out of the prison as well as those who are in it; which appeal, after the trial of such prisoners, shall be removed into B. R. and process issue from them against the rest. But if those out of prison be omitted in the appeal, they can never be put into any other; because there can be but one appeal for the felony. In this way the gaols are cleared, and all offenders tried, punished, or delivered, in every year.—Their commission is turned over to the justices of assize.

JUSTICES *of Nisi Prius*, are now the same with *justices of assize.* It is a common adjournment of a cause in the common pleas to put it off to such a day, *Nisi prius justiciarii venerint ad eas partes ad capiendas assizas:* from which clause of adjournment they are called *justices of nisi prius*, as well as *justices of assize*, on account of writ and actions they have to deal in.

JUSTICES *of Oyer and Terminer*, were justices deputed on some special occasions to hear and determine particular causes.—The commission of oyer and terminer is directed to certain persons, upon any insurrection, heinous demeanour, or trespass committed, who must first inquire, by means of the grand jury or inquest, before they are empowered to hear and determine by the help of the petit jury. It was formerly held that no judge or other lawyer could act in the commission of oyer and terminer, or that of gaol-delivery, within the county where he was born or inhabited; but it was thought proper by 12 Geo. II. cap. 27. to allow any man to be a justice of oyer and terminer and general gaol-delivery within any county of England.

JUSTICES *of the Peace* are persons of interest and credit, appointed by the king's commission to keep the peace of the county where they live.

Of these some for special respect are made of the quorum, so as no business of importance may be despatched

Justice. spatched without the presence or assent of them or one of them. Every justice of peace has a separate power, and his office is to call before him, examine, issue warrants for apprehending, and commit to prison all thieves, murderers, wandering rogues; those that hold conspiracies, riots, and almost all delinquents which may occasion the breach of the peace and quiet of the subject; to commit to prison such as cannot find bail, and to see them brought forth in due time to trial; and bind over the prosecutors to the assizes. And if they neglect to certify examinations and informations to the next gaol-delivery, or do not bind over prosecutors, they should be fined. A justice may commit a person that doth a felony in his own view without a warrant; but if on the information of another, he must make a warrant under hand and seal for that purpose. If complaint and oath be made before a justice of goods stolen, and the informer, suspecting that they are in a particular house, shows the cause of his suspicion, the justice may grant a warrant to the constable, &c. to search in the place suspected, to seize the goods and person in whose custody they are found, and bring them before him or some other justice. The search on these warrants ought to be in the day time, and doors may be broke open by constables to take the goods. Justices of peace may make and persuade an agreement in petty quarrels and breaches of the peace, where the king is not entitled to a fine, though they may not compound offences or take money for making agreements. A justice hath a discretionary power of binding to the good behaviour; and may require a recognizance, with a great penalty of one for his keeping of the peace, where the party bound is a dangerous person, and likely to break the peace, and do much mischief; and for default of sureties he may be committed to gaol. But a man giving security for keeping the peace in the king's bench or chancery, may have a *supersedeas* to the justices in the county not to take security; and also by giving surety of the peace to any other justice. If one make an assault upon a justice of peace, he may apprehend the offender, and commit him to gaol till he finds sureties for the peace; and a justice may record a forcible entry on his own possession; in other cases he cannot judge in his own cause. Contempts against justices are punishable by indictment and fine at the sessions. Justices shall not be regularly punished for any thing done by them in session as judges; and if a justice be tried for any thing done in his office, he may plead the general issue, and give the special matter in evidence; and if a verdict is given for him, or if the plaintiff be nonsuit, he shall have double costs; and such action shall only be laid in the county where the offence is committed, 7 Jac. 5. 21 Jac. cap. 12. But if they are guilty of any misdemeanour in office, information lies against them in the king's bench, where they shall be punished by fine and imprisonment; and all persons who recover a verdict against a justice for any wilful or malicious injury, are entitled to double costs. By 24 Geo. II. cap. 44. no writ shall be sued out against any justice of peace, for any thing done by him in the execution of his office, until notice in writing shall be delivered to him one month before the suing out of the same, containing the cause of action, &c. within which month he may tender amends; and if the tender be found sufficient, he shall have a verdict, &c. Nor shall any action be brought against a justice for any thing done in the execution of his office, unless commenced within six months after the act committed. Justice.

A justice is to exercise his authority only within the county where he is appointed by his commission, not in any city which is a county of itself, or town corporate, having their proper justices, &c. but in other towns and liberties he may. The power and office of justices terminates in six months after the demise of the crown, by an express writ of discharge under the great seal, by writ of *supersedeas*, by a new commission, and by accession of the office of sheriff or coroner.

The original of justices of the peace is referred to the fourth year of Edward III. They were first called *conservators* or *wardens of the peace*, elected by the county upon a writ directed to the sheriff: but the power of appointing them was transferred by statutes from the people to the king; and under this appellation appointed by 1 Edward III. cap. 16. Afterwards the statute 34 Edw. III. cap. 1. gave them the power of trying felonies, and then they acquired the appellation of *justice*. They are appointed by the king's special commission under the great seal, the form of which was settled by all the judges, A. D. 1590; and the king may appoint as many as he shall think fit in every county in England and Wales, though they are generally made at the discretion of the lord chancellor, by the king's leave. At first the number of justices was not above two or three in a county, 18 Edw. III. cap. 2. Then it was provided by 34 Edw. III. cap. 1. that one lord, and three or four of the most worthy men in the county, with some learned in the law, should be made justices in every county. The number was afterwards restrained first to six and then to eight, in every county, by 12 Ric. II. cap. 10. and 14 Ric. II. cap. 11. But their number has greatly increased since their first institution. As to their qualifications, the statutes just cited direct them to be of the best reputation and most worthy men in the county; and the statute 13 Ric. II. cap. 7. orders them to be of the most sufficient knights, esquires, and gentlemen of the law; and by the 2 Hen. V. stat. 1. cap. 4. and stat. 2. cap. 1. they must be resident in their several counties. And by 18 Hen. VI. cap. 11. no justice was to be put in commission, if he had not lands to the value of 20l. per annum. It is now enacted by 5 Geo. II. cap. 11. that every justice shall have 100l. per annum, clear of all deductions; of which he must make oath by 18 Geo. II. cap. 20. And if he acts without such qualification, he shall forfeit 100l. It is also provided by 5 Geo. II. that no practising attorney, solicitor, or proctor, shall be capable of acting as a justice of the peace.

Justices of the Peace within Liberties, are justices of the peace who have the same authority in cities or other corporate towns as the others have in counties; and their power is the same; only that these have the assize of ale and beer, wood, and victuals, &c. Justices of cities and corporations are not within the qualification act, 5 Geo. II. cap. 17.

Fountain of Justice, one of the characters or attributes of the king. See Prerogative.

By the fountain of justice the law does not mean the

Justice.

author or *original*, but only the *distributor*. Justice is not derived from the king as from his *free gift*; but he is the steward of the public, to dispense it to whom it is *due*. He is not the spring, but the reservoir, from whence right and equity are conducted, by a thousand channels, to every individual. The original power of judicature, by the fundamental principles of society, is lodged in the society at large: but as it would be impracticable to render complete justice to each individual, by the people in their collective capacity, therefore every nation has committed that power to certain select magistrates who with more ease and expedition can hear and determine complaints: and in England this authority has immemorially been exercised by the king or his substitutes. He therefore has alone the right of erecting courts of judicature: for though the constitution of the kingdom hath intrusted him with the whole executive power of the laws, it is impossible, as well as improper, that he should personally carry into execution this great and extensive trust: it is consequently necessary that courts should be erected, to assist him in executing this power; and equally necessary, that, if erected, they should be erected by his authority. And hence it is that all jurisdictions of courts are either mediately or immediately derived from the crown; their proceedings run generally in the king's name, they pass under his seal, and are executed by his officers.

It is probable, and almost certain, that in very early times, before our constitution arrived at its full perfection, our kings in person often heard and determined causes between party and party. But at present, by the long and uniform usage of many ages, our kings have delegated their whole judicial power to the judges of their several courts; which are the grand depository of the fundamental laws of the kingdom, and have gained a known and stated jurisdiction, regulated by certain and established rules, which the crown itself cannot now alter but by act of parliament. And in order to maintain both the dignity and independence of the judges in the superior courts, it is enacted by the stat. 13 W. III. c. 2. that their commissions shall be made, not, as formerly, *durante beneplacito*, but *quamdiu bene se gesserint*, and their salaries ascertained and established; but that it may be lawful to remove them on the address of both houses of parliament. And now, by the noble improvements of that law in the statute of 1 Geo. III. c. 23. enacted at the earnest recommendation of the king himself from the throne, the judges are continued in their offices during their good behaviour, notwithstanding any demise of the crown (which was formerly held immediately to vacate their seats), and their full salaries are absolutely secured to them during the continuance of their commissions; his majesty having been pleased to declare, that he looked upon the independence and uprightness of the judges, as essential to the impartial administration of justice; as one of the best securities of the rights and liberties of his subjects; and as most conducive to the honour of the crown."

In criminal proceedings or prosecutions for offences, it would still be a higher absurdity, if the king personally sat in judgment; because, in regard to these, he appears in another capacity, that of *prosecutor*. All offences are either against the king's peace, or his crown and dignity; and are so laid in every indictment. For though in their consequences they generally seem (except in the case of treason and a very few others) to be rather offences against the kingdom than the king; yet, as the public, which is an invisible body, has delegated all its power and rights, with regard to the execution of the laws, to one visible magistrate, all affronts to that power, and breaches of those rights, are immediately offences against him, to whom they are so delegated by the public. He is therefore the proper person to prosecute for all public offences and breaches of the peace, being the person injured in the eye of the law. And this notion was carried so far in the old Gothic constitution (wherein the king was bound by his coronation oath to conserve the peace), that in case of any forcible injury offered to the person of a fellow subject, the offender was accused of a kind of perjury, in having violated the king's coronation oath; *dicebatur fregisse juramentum regis juratum*. And hence also arises another branch of the prerogative, that of *pardoning* offences; for it is reasonable that he only who is injured should have the power of forgiving. See PARDON.

In this distinct and separate existence of the judicial power in a peculiar body of men, nominated indeed, but not removable at pleasure, by the crown, consists one main preservative of the public liberty; which cannot subsist long in any state, unless the administration of common justice be in some degree separated both from the legislative and also from the executive power. Were it joined with the legislative, the life, liberty, and property of the subject would be in the hands of arbitrary judges, whose decisions would be then regulated only by their own opinions, and not by any fundamental principles of law; which, though legislators may depart from, yet judges are bound to observe. Were it joined with the executive, this union might soon be an overbalance for the legislative. For which reason, by the statute of 16 Car. I. c. 10. which abolished the court of star-chamber, effectual care is taken to remove all judicial power out of the hands of the king's privy-council; who, as then was evident from recent instances, might soon be inclined to pronounce that for law which was most agreeable to the prince or his officers. Nothing therefore is more to be avoided in a free constitution, than uniting the provinces of a judge and a minister of state. And indeed, that the absolute power, claimed and exercised in a neighbouring nation, is more tolerable than that of the eastern empires, is in a great measure owing to their having vested the judicial power in their parliaments; a body separate and distinct from both the legislative and executive: and if ever that nation recovers its former liberty, it will owe it to the efforts of those assemblies. In Turkey, where every thing is centered in the sultan or his ministers, despotic power is in its meridian, and wears a more dreadful aspect.

A consequence of this prerogative is the legal ubiquity of the king. His majesty, in the eye of the law, is always present in all his courts, though he cannot personally distribute justice. His judges are the mirror by which the king's image is reflected. It is the regal office, and not the royal person, that is always present in court, always ready to undertake prosecutions, or pronounce judgment, for the benefit and protection of the subject. And from this ubiquity it follows, that

Justice ‖ Justin.

the king can never be nonsuit; for a nonsuit is the desertion of the suit or action by the non-appearance of the plaintiff in court. For the same reason also in the forms of legal proceedings, the king is not said to appear by his attorney, as other men do; for he always appears, in contemplation of law, in his own proper person.

From the same original, of the king's being the fountain of justice, we may also deduce the prerogative of issuing proclamations, which is vested in the king alone. See PROCLAMATION.

JUSTICE Seat. See *FOREST Courts.*

JUSTICIA, MALABAR NUT; a genus of plants, belonging to the diandria class; and in the natural method ranking under the 40th order, *Personatæ*. See BOTANY *Index*.

JUSTICIAR, in the old English laws, an officer instituted by William the Conqueror, as the chief officer of state, who principally determined in all cases, civil and criminal. He was called in Latin *Capitalis justiciarius totius Angliæ*. For JUSTICIAR in Scotland, see LAW *Index*.

JUSTICIARY, or COURT OF JUSTICIARY, in Scotland. See LAW *Index*.

JUSTIFICATION, in *Law*, signifies a maintaining or showing a sufficient reason in court why the defendant did what he is called to answer. Pleas in justification must set forth some special matter: thus on being sued for a trespass, a person may justify it by proving that the land is his own freehold; that he entered a house, in order to apprehend a felon; or by virtue of a warrant to levy a forfeiture, or in order to take a distress; and in an assault, that he did it out of necessity.

JUSTIFICATION, in *Theology*, that act of grace which renders a man just in the sight of God, and worthy of eternal happiness. See THEOLOGY.

Different sects of Christians hold very different opinions concerning the doctrine of justification; some contending for justification by faith alone, and others by good works.

JUSTIN, a celebrated historian, lived, according to the most probable opinion, in the second century, under the reign of Antoninus Pius. He wrote, in elegant Latin, an abridgement of the history of Trogus Pompeius; comprehending the actions of almost all nations, from Ninus the founder of the Assyrian empire to the emperor Augustus. The original work, to the regret of the learned, is lost: this abridgement, being written in a polite and elegant style, was probably the reason why that age neglected the original. The best editions of Justin are, *ad usum Delphini* in 4to; and *cum notis variorum et Gronovii*, in 8vo.

JUSTIN, *St*, commonly called *Justin Martyr*, one of the earliest and most learned writers of the eastern church, was born at Neapolis, the ancient Sechem of Palestine. His father Priscus, a Gentile Greek, brought him up in his own religion, and had him educated in all the Grecian learning. To complete his studies he travelled to Egypt, and followed the sect of Plato. But one day walking by the sea side wrapt in contemplation, he was met by a grave person, of a venerable aspect; who, falling into discourse with him, turned the conversation by degrees from the excellence of Platonism to the superior perfection of Christianity; and reasoned so well, as to raise in him an ardent curiosity to inquire into the merits of that religion; in consequence of which inquiry he was converted about the year 132. On his embracing that religion, he quitted neither the profession nor the habit of a philosopher; but a persecution breaking out under Antoninus, he composed *An Apology for the Christians*; and afterwards presented another to the emperor Marcus Aurelius, in which he vindicated the innocence and holiness of the Christian religion against Crescens a Cynic philosopher, and other calumniators. He did honour to Christianity by his learning and the purity of his manners; and suffered martyrdom in 167. Besides his two Apologies, there are still extant his *Dialogue with Trypho*, a Jew; two treatises addressed to the Gentiles, and another on the unity of God. Other works are also ascribed to him. The best editions of St Justin are those of Robert Stephens, in 1551 and 1571, in Greek and Latin; that of Morel, in Greek and Latin, in 1656; and that of Don Prudentius Marandus, a learned Benedictine, in 1742, in folio.

Justin ‖ Justiniani.

JUSTINIAN I. son of Justin the elder, was made Cæsar and Augustus in 527, and soon after emperor. He conquered the Persians by Belisarius his general, and exterminated the Vandals; regained Africa; subduced the Goths in Italy; defeated the Moors; and restored the Roman empire to its primitive glory. See (History of) CONSTANTINOPLE, No. 93—97; and ITALY, No. 12, &c.

The empire being now in the full enjoyment of a profound peace and tranquillity, Justinian made the best use of it, by collecting the immense variety and number of the Roman laws into one body. To this end he selected ten of the most able lawyers in the empire; who, revising the Gregorian, Theodosian, and Hermogenian codes, compiled one body, called *Codex Justinianus*. This may be called the *statute law*, as consisting of the rescripts of the emperors. But the reduction of the other part was a much more difficult task: it was made up of the decisions of the judges and other magistrates, together with the authoritative opinions of the most eminent lawyers, all which lay scattered, without any order, in no less than 2000 volumes and upwards. These were reduced to the number of 50; but ten years were spent in the reduction. The design was completed in the year 553, and the name of *Digests* or *Pandects* given to it. Besides these, for the use chiefly of young students in the law, and to facilitate that study, Justinian ordered four books of institutes to be drawn up, containing an abstract or abridgement of the text of all the laws; and lastly, the laws of modern date, posterior to that of the former, were thrown into one volume in the year 541, called the *Novellæ*, or New Code.

This emperor died in the year 565, aged 83, in the 39th of his reign, after having built a great number of churches; particularly the famous Sancta Sophia at Constantinople, which is esteemed a masterpiece of architecture.

JUSTINIANI, ST LAURENCE, the first patriarch of Venice, was born there of a noble family in 1381. He died in 1485; he left several religious works, which were printed together at Lyons in 1568, in one volume folio, with his life prefixed by his nephew. He was beatified by Clement VII. in 1524, and he was canonized by Alexander VIII. in 1690.

JUSTINIANI,

Justiniani ‖ Juvenal.

JUSTINIANI, *Bernard*, was born at Venice in 1408. He obtained the senators robe at the age of 19, served the republic in several embassies, and was elected procurator of St Mark in 1474. He was a learned man, and wrote the History of Venice, with some other works of considerable merit; and died in 1498.

JUSTINIANI, *Augustin*, bishop of Nebbio, one of the most learned men of his time, was descended from a branch of the same noble family with the two foregoing; and was born at Genoa in 1480. He assisted at the fifth council of Lateran, where he opposed some articles of the concordat between France and the court of Rome. Francis I. of France made him his almoner: and he was for five years regius professor of Hebrew at Paris. He returned to Genoa in 1522, where he discharged all the duties of a good prelate; and learning and piety flourished in his diocese. He perished at sea in his passage from Genoa to Nebbio, in 1536. He composed several pieces; the most considerable of which is *Psalterium Hebræum, Græcum, Arabicum, et Chaldeum, cum tribus Latinis interpretationibus et glossis.* This was the first psalter of the kind printed; and there is also ascribed to the same prelate a translation of Maimonides's *More Nevochim.*

JUSTNESS, the exactness or regularity of any thing.

Justness is chiefly used in speaking of thought, language, and sentiments. The justness of a thought consists in a certain precision or accuracy, by which every part of it is perfectly true, and pertinent to the subject. Justness of language consists in using proper and well chosen terms; in not saying either too much or too little. M. de Mere, who has written on justness of mind, distinguishes two kinds of justness; the one arising from taste and genius, the other from good sense or right reason. There are no certain rules to be laid down for the former, viz. to shew the beauty and exactness in the turn or choice of a thought; the latter consists in the just relations which things have to one another.

JUTES, the ancient inhabitants of Jutland in Denmark.

JUTLAND, a large peninsula, which makes the principal part of the kingdom of Denmark. It is bounded on the south-east by the duchy of Holstein, and is surrounded on the other sides by the German ocean and the Baltic sea. It is about 180 miles in length from north to south, and 70 in breadth from east to west. Its extent is about 9200 square miles, and its population 440,000. The air is very cold but wholesome; and the soil is fertile in corn and pastures. This was anciently called the *Cimbrian Chersonesus*, and is supposed to be the country from whence the Saxons came into England. It is divided into two parts, called *North* and *South Jutland*: the latter is the duchy of Sleswick, and lies between North Jutland and the duchy of Holstein; and the duke of that name is in possession of part of it, whose capital town is Gottorp; for which reason the sovereign is called the *duke of Holstein Gottorp.*

JUVENAL, Decius Junius, the celebrated Roman satirist, was born about the beginning of the emperor Claudius's reign, at Aquinum in Campania. His father was probably a freed man, who being rich, gave him a liberal education, and, agreeably to the taste of the times bred him up to eloquence; in which he made a great progress, first under Fronto the grammarian, and afterwards, as is generally conjectured, under Quintilian; after which he attended the bar, and made a distinguished figure there for many years by his eloquence. In the practice of this profession he had improved his fortune and interest at Rome before he turned his thoughts to poetry, the very style of which, in his satires, speaks a long habit of declamation; *subactum redolent declamatorem*, say the critics. It is said he was above 40 years of age when he recited his first essay to a small audience of his friends; but being encouraged by their applause, he ventured a greater publication; which reaching the ears of Paris, Domitian's favourite at that time, though but a pantomime player, whom our satirist had severely insulted, that minion made his complaint to the emperor; who sent him thereupon into banishment, under pretence of giving him the command of a cohort in the army, which was quartered at Pentapolis, a city upon the frontiers of Egypt and Libya.

Juvenal ‖ Juxon.

After Domitian's death, our satirist returned to Rome, sufficiently cautioned not only against attacking the characters of those in power, under arbitrary princes, but against all personal reflections upon the great men then living; and therefore he thus wisely concludes the debate he is supposed to have maintained for a while with a friend on this head, in the first satire, which seems to be the first he wrote after his banishment:

Experiar quid concedatur in illos
Quorum Flaminia tegitur cinis atque Latina.

"I will try what liberties I may be allowed with those whose ashes lie under the Flaminian and Latin ways," along each side of which the Romans of the first quality used to be buried.—It is believed that he lived till the reign of Adrian in 128. There are still extant 16 of his satires, in which he discovers great wit, strength, and keenness, in his language: but his style is not perfectly natural; and the obscenities with which these satires are filled render the reading of them dangerous to youth.

JUVENCUS, Caius Vecticus Aquilinus, one of the first of the Christian poets, was born of an illustrious family in Spain. About the year 320 he put the life of Jesus Christ into Latin verse, of which he composed four books. In this work he followed closely the text of the evangelists: but his verses are written in a bad taste and in bad Latin.

JUVENTAS, in *Mythology*, the goddess who presided over youth among the Romans. This goddess was long honoured in the Capitol, where Servius Tullius erected her statue. Near the chapel of Minerva there was the altar of Juventas, and upon this altar a picture of Proserpine. The Greeks called the goddess of youth *Hebe*; but it has been generally supposed that this was not the same with the Roman *Juventas.*

JUXON, Dr William, archbishop of Canterbury, was born at Chichester in 1582. He was educated at Merchant Taylors school, and from thence elected into St John's college, Oxford, of which he became president. King Charles I. made him bishop of London; and in 1635 promoted him to the post of lord high treasurer

Juxon. treasurer of England. The whole nation, and especially the nobility, were greatly offended at this high office being given to a clergyman; but he behaved so well in the administration, as soon put a stop to all the clamour raised against him. This place he held no longer than the 17th of May 1641, when he prudently resigned the staff to avoid the storm which then threatened the court and the clergy. In the following February an act passed, depriving the bishops of their votes in parliament, and incapacitating them from any temporal jurisdiction. In these leading steps, as well as the total abolition of the episcopal order which followed, he was involved with his brethren; but neither as a bishop nor as treasurer was a single accusation brought against him in the long parliament. During the civil wars he resided at his palace at Fulham, where his meek, inoffensive, and affable manners, notwithstanding his remaining steady in his loyalty to the king, procured him the visits of the principal persons of the opposite party, and respect from all. In 1648 he attended his majesty at the treaty in the isle of Wight; and by his particular desire, waited upon him at Cotton-house Westminster, the day after the commencement of his trial; during which he frequently visited him in the office of a spiritual father; and his majesty declared he was the greatest comfort to him in that afflictive situation. He likewise attended his majesty on the scaffold, where the king, taking off his cloak and george, gave him the latter: after the execution, our pious bishop took care of the body, which he accompanied to the royal chapel at Windsor, and stood ready with the common-prayer book in his hands to perform the last ceremony for the king; but was prevented by Colonel Whichcot, governor of the castle. He continued in the quiet possession of Fulham palace till the ensuing year 1649, when he was deprived, having been spared longer than any of his brethren. He then retired to his own estate in Gloucestershire, where he lived in privacy till the Restoration, when he was presented to the see of Canterbury; and in the little time he enjoyed it, expended in buildings and reparations at Lambeth palace and Croydon house near 15,000l. He died in 1663; having bequeathed 7000l. to St John's college, and to other charitable uses near 5000l. He published a sermon on Luke xviii. 31. and Some Considerations upon the Act of Uniformity. Juxon || Jynx.

JUXTAPOSITION, is used by philosophers to denote that species of growth which is performed by the apposition of new matter to the surface or outside of old. In which sense it stands opposed to *intussusception;* where the growth of a body is performed by the reception of a juice within it diffused through its canals.

IVY. See HEDERA, BOTANY *Index*.

IXIA, a genus of plants belonging to the triandria class, and in the natural method ranking under the 6th order, *Ensatæ*. See BOTANY *Index*.

IXION, in fabulous history, king of the Lapithé, married Dia, the daughter of Deionius, to whom he refused to give the customary nuptial presents. Deionius in revenge took from him his horses: when Ixion, dissembling his resentment, invited his father-in-law to a feast, and made him fall through a trap-door into a burning furnace, in which he was immediately consumed. Ixion being afterwards stung with remorse for his cruelty, ran mad; on which Jupiter, in compassion, not only forgave him, but took him up into heaven, where he had the impiety to endeavour to corrupt Juno. Jupiter, to be the better assured of his guilt, formed a cloud in the resemblance of the goddess, upon which Ixion begat the centaurs: but boasting of his happiness, Jove hurled him down to Tartarus, where he lies fixed on a wheel encompassed with serpents, which turns without ceasing.

IXORA, a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 47th order, *Stellatæ*. See BOTANY *Index*.

JYNX, a genus of birds belonging to the order of picæ. See ORNITHOLOGY *Index*.

K.

K, The tenth letter, and seventh consonant of our alphabet; being formed by the voice, by a guttural expression of the breath through the mouth, together with a depression of the lower jaw and opening of the teeth.

Its sound is much the same with that of the hard *c*, or *qu:* and it is used for the most part only before *e*, *i*, and *n*, in the beginning of words; as *ken*, *kill*, *know*, &c. It used formerly to be always joined with *c* at the end of words, but is at present very properly omitted, at least in words derived from the Latin: thus, for *publick*, *musick*, &c. we say, *public*, *music*, &c. However in monosyllables, it is still retained, as *jack*, *block*, *mock*, &c.

K is borrowed from the Greek *kappa;* andwas but little used among the Latins: Priscian looked on it as a superfluous letter; and says it was never to be used except in words borrowed from the Greek. Dausquius, after Sallust, observes that it was unknown to the ancient Romans. Indeed we seldom find it in any Latin authors, excepting in the word *kalendæ*, where it sometimes stands in lieu of a *c*.—Carthage, however, is frequently spelt on medals with a *K;* SALVIS AUG. ET CAES. FEL. KART. and sometimes the letter K alone stood for *Carthage*.—M. Berger has observed, that a capital K, on the reverse of the medals of the emperors of Constantinople, signified *Konstantinus;* and on the Greek medals he will have it to signify KOIAH ΣΥΡΙΑ, "Coelesyria."

Quintilian tells us, that in his time some people had

K ‖ Kabobiquas.

a mistaken notion, that wherever the letter *c* and *a* occurred at the beginning of a word, *k* ought to be used instead of the *c*. See C.

Lipsius observes, that *K* was a stigma anciently marked on the foreheads of criminals with a red-hot iron.

The letter K has various significations in old charters and diplomas; for instance KR. stood for *chorus*; KR. C. for *cara civitas*; KRM. for *carmen*; KR. AM. N. for *carus amicus noster*; KS. *chaos*; KT. *capite tonsus*, &c.

The French never use the letter *k* excepting in a few terms of art and proper names borrowed from other countries. Ablancourt, in his dialogue of the letters, brings in *k* complaining, that he has been often in a fair way to be banished out of the French alphabet, and confined to the countries of the north.

K is also a numeral letter, signifying 250, according to the verse,

K *quoque ducentos et quinquaginta tenebit.*

When it had a stroke at top, $\overline{K}$, it stood for 250,000.

K on the French coinage denotes money coined at Bourdeaux.

KAARTA, a kingdom in Africa, through which Mr Park passed from the Gambia to the Niger. According to him the country consists of sandy plains and rocky hills, the level part of it being the most extensive. It is inhabited by Negroes, many of whom retain all their ancient superstitions, although converted to the religion of Mahomet. White men, he informs us, are strangers in the kingdom of Kaarta; and Mr Park's appearance had nearly the same effect upon them which ignorant people in our own country attribute to ghosts. Mr Park was well received by the king at Kemmoo, who at the same time informed him with ingenuous frankness, that he could not protect him, being then at war with the king of Bambarra, but he gave him a guard to Jarra, the frontier town of the neighbouring kingdom of Ludamar. From our author's account of this war, it seems to be highly impolitic to liberate the negroes from slavery till civilization and Christianity be introduced into Africa. Kemmoo, the metropolis of this kingdom, lies in N. Lat. 14. 15. W. Long. 7. 20.

KAAT's BAAN, a town of New York, on the west bank of Hudson's river, seven miles south of Kaat's Kill.

KAAT's-KILL, a township of New York, on the west bank of Hudson's river; five miles south of Hudson city, and 125 north of New York. It is the capital of Greene county, and is pleasantly situated near the mouth of Kaats-kill river.

KAAT's-KILL MOUNTAINS, a majestic ridge of mountains in the vicinity of the above township, which are the first part of the Alleghany mountains.

KABA. See MECCA.

KABOBIQUAS, a nation in the south of Africa, who are reported never to have seen a white man till the year 1785, when they were visited by M. Vaillant. On his approach they felt his hair, hands, feet, and almost every part of his body. His beard astonished them, and they supposed that his whole body was covered with hair. The children were greatly alarmed, but presents of sugarcandy soon reconciled them. The chief showed him every mark of respect, whom he represents as a majestic figure, with a long mantle made of four jackal skins. The hair of the people is very short, curled, and ornamented with small copper buttons. Although they go almost naked, the females are remarkably chaste, and very reserved. Their only ornaments are glass beads. M. Vaillant assures us that he never saw a nation so disinterested, as they vied with each other in generosity. Many of them gave away gratuitously, and without receiving any thing in return, part of their herds and flocks. They are also of a courageous and martial character, making use of poisoned arrows and lances with long points. They are extremely obedient to their chief, whose will is a law. They believe in a supreme being who governs all things, and who exists far beyond the stars. They have no idea of a future existence, or of rewards and punishments, and have neither worship, sacrifices, ceremonies, nor priests. Their country lies between Long. 16. 25. and 19. 25. east of Paris, and between 23° and 25° S. Lat.

Kabobiquas ‖ Kajuaga.

KADESH, KADESH-BARNEA, or EN-MISHPAT, in *Ancient Geography*, a city celebrated for several events. At Kadesh, Miriam the sister of Moses died, (Numb. xx. 1.). Here it was that Moses and Aaron, showing a distrust in God's power when they smote the rock at the waters of strife, were condemned to die, without the consolation of entering the promised land (Numb. xxvii. 14.). The king of Kadesh was one of the princes killed by Joshua (xii. 22.). This city was given to the tribe of Judah, and was situated about eight leagues from Hebron to the south.

Mr Wells is of opinion, that this Kadesh, which was situated in the wilderness of Zin, was a different place from Kadesh-barnea in the wilderness of Paran.

KADMONÆI, or CADMONÆI, in *Ancient Geography*, a people of Palestine, said to dwell at the foot of Mount Hermon; which lies east, and is the reason of the appellation, with respect to Libanus, Phœnicia, and the northern parts of Palestine. Called also *Hevæi* (Moses).

KÆMPFERIA, ZEDOARY, a genus of plants belonging to the monandria class; and in the natural method ranking under the 8th order, *Scitamineæ*. See BOTANY *Index*.

KAJUAGA, a kingdom of Africa, bounded on the south-east and south by Bambouk; on the west by Bondon and Foota Torra; and on the north by the river Senegal. The air and climate are more pure and healthy than at any of the settlements towards the coast; the face of the country is pleasingly diversified with hills and valleys, and the windings of the river Senegal make the scenery on its banks extremely beautiful. The inhabitants are called Serawoollies, who have a jet black complexion, in which respect they are not to be distinguished from the Jaloffs. The government is monarchical, and the regal authority, according to Mr Park, is sufficiently formidable. The people are deemed tolerably fair and just in their dealings, and indefatigable in their exertions to acquire wealth.

Their language abounds with gutturals, and therefore is not so harmonious as that which is spoken by the Foulahs; but it is worth a traveller's while to obtain a knowledge of it, as it is generally understood in many kingdoms of Africa. Joag is the frontier town, entering

Kajuaga ‖ Kalendar.

tering from Pisania, surrounded by a high wall, and is supposed to contain 2000 inhabitants. It is situated in N. Lat. 14. 25. W. Long. 9. 46.

KAINSI, the Hottentot name of a species of antelope, denominated by the Dutch, on account of its agility, *klip-springer*. It is of a yellowish gray-colour, and of the size of a kid of a year old. See CAPRA, MAMMALIA *Index*.

KALENDAR, a distribution of time, accommodated to the uses of life; or a table or almanack, containing the order of days, weeks, months, feasts, &c. happening throughout the year. See TIME, MONTH, YEAR, &c.

It is called *kalendar*, from the word *kalendæ*, anciently wrote in large characters at the head of each month. See KALENDS.

The days in kalendars were originally divided into *octoades*, or eights; but afterwards, in imitation of the Jews, into *hebdomades*, or sevens; which custom, Scaliger observes, was not introduced among the Romans till after the time of Theodosius.

There are divers kalendars, according to the different forms of the year and distributions of time established in different countries. Hence the Roman, the Jewish, the Persian, the Julian, the Gregorian, &c. kalendars.

The ancient Roman kalendar is given by Ricciolus, Struvius, Danet, and others; by which we see the order and number of the Roman holidays and work days.

The three Christian kalendars are given by Wolfius in his Elements of Chronology.

The Jewish kalendar was fixed by Rabbi Hillel about the year 360, from which time the days of their year may be reduced to those of the Julian kalendar.

The Roman KALENDAR owed its origin to Romulus: but it has undergone various reformations since his time. That legislator distributed time into several periods, for the use of the people under his command: but as he was much better versed in matters of war than of astronomy, he only divided the year into ten months, making it begin in the spring, on the first of March; imagining the sun made his course through all the seasons in 304 days.

Romulus's kalendar was reformed by Numa, who added two months more, January and February; placing them before March: so that his year consisted of 355 days, and began on the first of January. He chose, however, in imitation of the Greeks, to make an intercalation of 45 days; which he divided into two parts; intercalating a month of 22 days at the end of each two years; and at the end of each two years more another of 23 days; which month, thus interposed, he called *Marcedonius*, or the intercalary February.

But these intercalations being ill observed by the pontiffs, to whom Numa committed the care of them, occasioned great disorders in the constitution of the year; which Cæsar, as sovereign pontiff, endeavoured to remedy. To this end, he made choice of Sosigenes, a celebrated astronomer of those times; who found, that the dispensation of time in the kalendar could never be settled on any sure footing without having regard to the annual course of the sun. Accordingly, as the sun's yearly course is performed in 365 days six hours, he reduced the year to the same number of days: the year of this correction of the kalendar was a year of confusion; they being obliged, in order to swallow up the 65 days that had been imprudently added, and which occasioned the confusion, to add two months besides the Marcedonius, which chanced to fall out that year; so that this year consisted of 15 months, or 445 days. This reformation was made in the year of Rome 708, 42 or 43 years before Christ. Kalendar.

The Roman kalendar, called also *Julian kalendar*, from its reformer Julius, is disposed into quadriennial periods; whereof the first three years, which he called *communes*, consist of 365 days; and the fourth, *bissextile*, of 366; by reason of the six hours, which in four years make a day or somewhat less, for in 134 years an intercalary day is to be retrenched. On this account it was, that Pope Gregory XIII. with the advice of Clavius and Ciaconius, appointed, that the hundredth year of each century should have no bissextile, excepting in each fourth century: that is, a subtraction is made of three bissextile days in the space of four centuries; by reason of the 11 minutes wanting in the six hours whereof the bissextile consists.

The reformation of the kalendar, or the *new style* as we call it, commenced on the 4th of October 1582, when ten days were thrown out at once, so many having been introduced into the computation since the time of the council of Nice in 325, by the defect of 11 minutes.

Julian Christian KALENDAR, is that wherein the days of the week are determined by the letters A, B, C, D, E, F, G, by means of the solar cycle; and the new and full moons, especially the paschal full moon, with the feast of Easter, and the other moveable feasts depending thereon, by means of golden numbers, rightly disposed through the Julian year. See CYCLE, and *GOLDEN Number*.

In this kalendar, the vernal equinox is supposed to be fixed to the 31st day of March: and the cycle of 19 years, or the golden numbers, constantly to indicate the places of the new and full moons; yet both are erroneous. And hence arose a very great irregularity in the time of Easter. To show this error the more apparently, let us apply it to the year 1715. In this year, then, the vernal equinox falls on the 10th of March; and therefore comes too early by 11 days. The paschal full moon falls on the 7th of April; and therefore too late, with regard to the cycle, by three days. Easter, therefore, which should have been on the 10th of April, was that year on the 17th. The error here lies only in the metemptosis, or postposition of the moon, through the defect of the lunar cycle. If the full moon had fallen on the 11th of March, Easter would have fallen on the 13th of March; and therefore the error arising from the anticipation of the equinox would have exceedingly augmented that arising from the postposition. These errors, in course of time, were so multiplied, that the kalendar no longer exhibited any regular Easter. Pope Gregory XIII. therefore, by the advice of Aloysius Lilius, in 1582, threw 10 days out of the month of October, to restore the equinox to its place, viz. the 21st of March; and thus introduced the form of the Gregorian year, with such a provision as that the equinox should be constantly kept to the 21st of March. The new moons and full moons, by advice of the same Lilius, were not to be indicated by golden

Kalendar. numbers, but by epacts. The kalendar, however, was still retained in Britain without this correction: whence there was a difference of 11 days between our time and that of our neighbours. But by 24 Geo. II. c. 23. the Gregorian computation is established here, and accordingly took place in 1752.

Gregorian KALENDAR, is that which, by means of epacts, rightly disposed through the several months, determines the new and full moons, and the time of Easter, with the moveable feasts depending thereon, in the Gregorian year.

The Gregorian kalendar, therefore, differs from the Julian, both in the form of the year, and in that epacts are substituted in lieu of golden numbers: for the use and disposition whereof, see EPACT.

Though the Gregorian kalendar be preferable to the Julian, yet it is not without its defects (perhaps as Tycho Brahe and Cassini imagine, it is impossible ever to bring the thing to a perfect justness). For, first, The Gregorian intercalation does not hinder, but that the equinox sometimes succeeds the 21st of March as far as the 23d; and sometimes anticipates it, falling on the 19th; and the full moon, which falls on the 20th of March, is sometimes the paschal; yet not so accounted by the Gregorians. On the other hand, the Gregorians account the full moon of the 22d of March the paschal; which yet falling before the equinox, is not paschal. In the first case, therefore, Easter is celebrated in an irregular month; in the latter, there are two Easters in the same ecclesiastical year. In like manner, the cyclical computation being founded on mean full moons, which yet may precede or follow the true one by some hours, the paschal full moon may fall on Saturday, which is yet referred by the cycle to Sunday: whence, in the first case, Easter is celebrated eight days later than it should be; in the other, it is celebrated on the very day of the full moon, with the Jews and Quartodeciman heretics; contrary to the decree of the council of Nice. Scaliger and Calvisius show other faults in the Gregorian kalendar, arising from the negligence and inadvertency of the authors; yet is this kalendar adhered to by the Romans throughout Europe, &c. and used wherever the Roman breviary is used.

Reformed or Corrected KALENDAR, is that which, setting aside all apparatus of golden numbers, epacts, and dominical letters, determines the equinox, with the paschal full moon, and the moveable feasts depending thereon, by astronomical computation, according to the Rudolphine Tables.

This kalendar was introduced among the Protestant states of Germany in the year 1700, when 11 days were at once thrown out of the month of February; so that in 1700 February had but 18 days: by this means, the corrected style agrees with the Gregorian. This alteration in the form of the year they admitted for a time; in expectation that, the real quantity of the tropical year being at length more accurately determined by observation, the Romanists would agree with them on some more convenient intercalation.

Construction of a KALENDAR *or Almanack.* 1. Compute the sun's and moon's place for each day of the year; or take them from ephemerides. 2. Find the dominical letter, and by means thereof distribute the kalendar into weeks. 3. Compute the time of Easter, and thence fix the other moveable feasts. 4. Add the immoveable feasts, with the names of the martyrs. 5. To every day add the sun's and moon's place, with the rising and setting of each luminary; the length of day and night; the crepuscula, and the aspects of the planets. 6. Add in the proper places the chief phases of the moon, and the sun's entrance into the cardinal points; i. e. the solstices and equinoxes; together with the rising and the setting, especially heliacal, of the planets and chief fixed stars. See ASTRONOMY.

The duration of the crepuscula, or the end of the evening and beginning of the morning twilight, together with the sun's rising and setting, and the length of days, may be transferred from the kalendars of one year into those of another; the differences in the several years being too small to be of any consideration in civil life.

Hence it appears, that the construction of a kalendar has nothing in it of mystery or difficulty, if tables of the heavenly motions be at hand.

Some divide kalendars or almanacks into public and private, perfect and imperfect; others into Heathen and Christian.

Public almanacks are those of a larger size, usually hung up for common or family use; private are those of a smaller kind, to be carried about either in the hand, inscribed on a staff, or in the pocket; perfect, those which have the dominical letters as well as primes and feasts inscribed on them; imperfect, those which have only the primes and immoveable feasts. Till about the fourth century, they all carry the marks of heathenism; from that age to the seventh, they are generally divided between heathenism and Christianity.

Almanacks are of somewhat different composition, some containing more points, others fewer. The essential part is the kalendar of months and days, with the rising and setting of the sun, age of the moon, &c. To these are added various parerga, astronomical, astrological, meteorological, chronological, and even political, rural, medical, &c. as calculations and accounts of eclipses, solar ingresses, aspects, and configurations of the heavenly bodies, lunations, heliocentrical and geocentrical motions of the planets, prognostics of the weather, and predictions of other events, tables of the planetary motions, the tides, terms, interest, twilight, equation, kings, &c.

Gelalean, or *Jellalæan* KALENDAR, is a correction of the Persian kalendar, made by order of Sultan Gelaleddan, in the 467th year of the Hegira; of Christ 1089.

KALENDAR, is used for the catalogue or fasti anciently kept in each church, of the saints both universal and those particularly honoured in each church; with their bishops, martyrs, &c. Kalendars are not to be confounded with martyrologies; for each church had its peculiar kalendar, whereas the martyrologies regarded the whole church in general, containing the martyrs and confessors of all the churches. From all the several kalendars were formed one martyrology: so that martyrologies are posterior to kalendars.

KALENDAR, is also applied to divers other compositions respecting the 12 months of the year.

In this sense, Spenser has given the shepherd's kalendar; Evelyn and Miller the gardener's kalendar, &c.

KALENDAR,

Kalendar ‖ Kalends.

KALENDAR, is also extended to an orderly table or enumeration of persons or things.

Lord Bacon wishes for a kalendar of doubts. A late writer has given a kalendar of the persons who may inherit estates in fee-simple.

KALENDAR, *Kalendarium*, originally denoted, among the Romans, a book containing an account of moneys at interest, which became due on the kalends of January, the usual time when the Roman usurers let out their money.

KALENDAR Months, the solar months, as they stand in the kalendar, viz. January 31 days, &c.

Astronomical KALENDAR, an instrument engraved upon copper plates, printed on paper, and pasted on board, with a brass slider which carries a hair, and shows by inspection the sun's meridian altitude, right ascension, declination, rising, setting, amplitude, &c. to a greater exactness than our common globes will show.

KALENDAR of Prisoners. See CALENDAR.

KALENDAR Brothers, a sort of devout fraternities, composed of ecclesiastics as well as laymen; whose chief business was to procure masses to be said, and alms distributed, for the souls of such members as were deceased. They were also denominated *kalend-brothers*, because they usually met on the kalends of each month, though in some places only once a quarter.

KALENDARIUM FESTUM. The Christians retained much of the ceremony and wantonness of the kalends of January, which for many ages was held a feast, and celebrated by the clergy with great indecencies, under the names *festum kalendarum*, or *hypodiaconorum*, or *stultorum*, that is, "the feast of fools:" sometimes also *libertas decembrica*. The people met masked in the church; and in a ludicrous way proceeded to the election of a mock pope, or bishop, who exercised a jurisdiction over them suitable to the festivity of the occasion. Fathers, councils, and popes, long laboured in vain to restrain this license, which prevailed at the close of the 15th century.

KALENDERS. See CALENDERS.

KALENDS, or CALENDS, in the Roman chronology, the first day of every month.—The word is formed from καλιω, *I call* or *proclaim*; because, before the publication of the Roman fasti, it was one of the offices of the pontifices to watch the appearance of the new moon, and give notice thereof to the *rex sacrificulus*; upon which a sacrifice being offered, the pontiff summoned the people together in the Capitol, and there with a loud voice proclaimed the number of kalends, or the day whereon the nones would be; which he did by repeating this formula as often as there were days of kalends, *Calo Juno Novella*. Whence the name *calendæ* was given thereto, from *calo*, *calare*. This is the account given by Varro. Others derive the appellation hence, That the people being convened on this day, the pontifex called or proclaimed the several feasts or holidays in the month; a custom which continued no longer than the year of Rome 450, when C. Flavius, the curule ædile, ordered the fasti or kalendar to be set up in public places, that everybody might know the differences of times, and the return of the festivals.

The kalends were reckoned backwards, or in a retrograde order. Thus, v. g. the first of May being the kalends of May; the last or the 30th of April was the *pridie kalendarum*, or second of the kalends of May; the 29th of April, the third of the kalends, or before the kalends; and so back to the 13th, where the ides commence; which are likewise numbered invertedly to the fifth, where the nones begin; which are numbered after the same manner to the first day of the month, which is the kalends of April. See IDES, and NONES.

Kalends ‖ Kalmucs.

The rules of computation by kalends are included in the following verses:

Prima dies mensis cujusque est dicta kalendæ:
Sex Maius nonas, October, Julius, et Mars;
Quatuor at reliqui: habet idus quilibet octo.
Inde dies reliquos omnes dic esse kalendas;
Quas retro numerans dices a mense sequente.

To find the day of the kalends answering to any day of the month we are in; see how many days there are yet remaining of the month, and to that number add two: for example, suppose it the 22d day of April; it is then the 10th of the kalends of May. For April contains 30 days: and 22 taken from 30, there remain 8; to which two being added, the sum is 10. The reason of adding two is, because the last day of the month is called *secundo kalendas*, the last but one *tertio kalendas*, &c.

The Roman writers themselves are at a loss for the reason of this absurd and whimsical manner of computing the days of the month: yet it is still kept up in the Roman chancery; and by some authors, out of a vain affectation of learning, preferred to the common, more natural, and easy manner.

KALENDS are also used in church history to denote conferences anciently held by the clergy of each deanry, on the first day of every month, concerning their duty and conduct, especially in what related to the imposition of penance.

KALENDS of January, in Roman antiquity, was a solemn festival consecrated to Juno and Janus; wherein the Romans offered vows and sacrifices to those deities, and exchanged presents among themselves as a token of friendship.

It was only a melancholy day to debtors, who were then obliged to pay their interests, &c. Hence Horace calls it *tristes calendæ*; Lib. I. Serm. Sat. 3.

KALI, the specific name of a plant which yields the substance also called kali or alkali. See SALSOLA.

KALISH, a province of Lower Poland, with the title of a palatinate. It is bounded on the west by the palatinate of Bosnia, on the east by that of Syrad, on the north by Regal Prussia, and on the south by Silesia. Kalish is the capital town.

KALISH, a town of Lower Poland, and capital of a palatinate of the same name, where the Jesuits had a magnificent college. It is seated on the river Prosna, in a morass, which renders it difficult of access. E. Long. 18. 0. N. Lat. 51. 20.

KALMIA, a genus of plants, belonging to the decandria class; and in the natural method ranking under the 18th order, *Bicornes*. See BOTANY *Index*.

KALMUCS, a tribe of Tartars, called also *Eluths*, inhabiting the larger half of what the *Europeans* call *Western Tartary*. Their territory extends from the Caspian sea, and the river *Yaik* or *Ural*, in 72 degrees of longitude from Ferro, to Mount Altay, in 110 degrees, and from the 40th to the 52d degree of north

Kalmucs. latitude; whence it may be computed about 1930 miles in length from west to east, and in breadth from north to south about 650 miles where broadest. It is bounded on the north by Russia and Siberia, from which it is separated by a chain of mountains; on the east by Mount Altay; on the south by the countries of Karazm and the two Bukharias, from which it is also separated, partly by a chain of mountains and partly by some rivers. See TARTARY.

Of the Kalmuck Tartars the following curious account is given by Professor Pallas.—They are in general, says he, of a middle size, and it is even rare to see among them a person that is tall; the women especially are of low stature, and have very agreeable features. Their limbs are neatly turned, and very few have any defects contracted in infancy. Their education being left solely to nature, procures for them a well formed body and sound constitution. The only defect which is common among them is their having the thighs and legs somewhat bent. A fat person is hardly ever to be met with; the richest and most distinguished, though they lead a life sufficiently indolent, and enjoy abundance of every thing they desire, are never excessively corpulent. Their skin is pretty fair, especially when young: but it is the custom of the lower sort to allow their male children to go quite naked both in the heat of the sun and in the smoky atmosphere of their felt huts: the men too sleep naked, covered only with their drawers; and from those circumstances they acquire that yellowish brown colour which characterizes them. The women, on the contrary, have a very delicate complexion; among those of a certain rank are found some with the most beautiful faces, the whiteness of which is set off by the fine black of their hair; and in this, as well as in their features, they perfectly resemble the figures in Chinese paintings.

The physiognomy which distinguishes the Kalmucs, is pretty generally known. Strangers are made to believe that it is frightfully deformed; and though indeed there are very ugly men to be found, yet in general their countenance has an openness in it that bespeaks a mild, a frank, and social disposition. In many it is of a roundish shape, and exceedingly agreeable; among the women some would be thought beauties even in those European cities where the taste is most scrupulous. The characteristic features of a Kalmuc or Mongul countenance are the following: The interior angle of the eye is placed obliquely downwards towards the nose, and is acute and fleshy; the eyebrows are black, narrow, and much arched; the nose is of a structure quite singular, being generally flat and broken towards the forehead; the cheek bone is high, the head and face very round; the eye is dark, the lips thick and fleshy, the chin short, and the teeth exceedingly white, continuing so to old age; the ears are of an enormous size, standing out from the head. These characters are more or less visible in each individual; but the person that possesses them all in the highest degree is considered as the most beautifully formed.

Among all the Mongul nations, the men have much less beard than in our European countries, and among the Tartars it appears much later. The Kalmucs have most of it; and yet even with them the beard is very scanty and thin, and few have much hair on any other part of the body.

People that lead a pastoral life enjoy the bodily senses in the greatest perfection. The Kalmucs find the Kalmucs. subtility of their sense of smell very useful in their military expeditions, for by it they perceive at a distance the smoke of a fire or the smell of a camp; there are many of them who can tell by applying the nose to the hole of a fox, or any other quadruped, if the animal be within or not. They hear at a great distance the trampling of horses, the noise of any enemy, of a flock of sheep, or even of strayed cattle; they have only to stretch themselves on the ground, and to apply their ear close to the turf. But nothing is more astonishing than the acuteness of sight in most of the Kalmucs, and the extraordinary distance at which they often perceive very minute objects, such as the dust raised by cattle or horses, and this from places very little elevated; in immense level deserts, though the particular inequalities of the surface, and the vapours which in fine weather are seen to undulate over the soil in great heats, considerably increase the difficulty. They are also accustomed to trace the print of a foot in these deserts by the sight alone.

These people possess many good qualities, which give them a great superiority over the wandering Tartais. A certain natural sagacity, a social disposition, hospitality, eagerness to oblige, fidelity to their chiefs, much curiosity, and a certain vivacity accompanied with good humour, which hardly ever forsakes even the most wretched among them, form the fair side of their character. On the other hand, they are careless, superficial, and want true courage; besides, they are remarkable for credulity, distrust, and a natural inclination authorized by custom for drunkenness and debauchery, but especially for a great degree of cunning, which they too often practise. The disposition to indolence is common and natural, especially among the men, to all Asiatic nations, who lead a kind of life exempt from subjection and devoid of activity; but this is less to be perceived among the Kalmucs, on account of their natural vivacity, and does not prevent their endeavours to oblige. Those among them who exercise any little trade, or who are reduced by poverty to hire themselves to the Russians either for labour or for fishing, are very assiduous and indefatigable. They sleep but little, going to rest late and rising with the sun. To sleep through the day, unless a person is drunk, is considered by them as dishonourable. But their extreme dirtiness can neither be disguised nor justified, and proceeds much more from their education, from the slovenliness attached to the profession of a herdsman, and from levity, than from laziness: for the Kalmuc women are indefatigable in whatever concerns domestic matters: and it is for this reason, as well as on the score of sensuality, that the Kirguisians are eager to seize and carry them off whenever an opportunity presents itself.

With regard to the intellectual faculties of the Kalmucs, notwithstanding their want of instruction and information, they possess good natural parts, an excellent memory, and a strong desire to learn. They acquire the Russian language with great facility, and pronounce it well; in which last article they very much surpass the Chinese. It would be very easy to civilize them, if their petulance and manner of life did not render it impracticable.

Although the Kalmucs are generally of a sanguine

Kalmucs. and choleric temperament, they live more amicably together than one could expect in a people that lead so independent a life. They seldom come to blows even over their cups, and their quarrels are hardly ever bloody. A murder very rarely happens, though their anger has something in it exceedingly fierce. It would seem that the morality of their religion, though exceedingly idolatrous, has been able to moderate their natural disposition in this respect; for in consequence of their dogmas, with regard to the transmigration of souls, every wanton murder either of men or beasts is thought a deadly sin.

The Kalmucs are exceedingly affable; and of so social a disposition, that it is rare for a traveller to perceive another, even at the distance of several miles, without going to salute him, and to inquire into the object of his journey. When a troop of Kalmucs perceive any person at a distance, it is customary for them to detach one of their number to the next eminence, from whence he makes a signal with his cap for the person to draw near. If this signal is not obeyed, the person is considered as an enemy or a robber, and is often pursued as such. They enter willingly into friendships: but these connexions are not quite disinterested; for to give and to receive presents are with them essential articles. A mere trifle, however, is sufficient to induce them to do you all manner of service; and they are never ungrateful as far as they are able. Adversity cannot deprive them of courage nor alter their good humour. A Kalmuc will never beg if he were in the extremest misery, but rather endeavour to acquire a subsistence by cheating: and when no other way remains, he will hire himself to some rich individual of his nation, or to some Russian, either as a herdsman, a fisherman, or for any other sort of labour. Very few of the rich value themselves much upon their wealth: but those who do, show no contempt for the poor of their own nation; though the meaner sort pay their court very obsequiously to the rich, who are always surrounded with a swarm of idle dependants.

Nothing can be more prudent than that exercise of hospitality practised by wandering nations: it is of the greatest advantage to those among them who travel across their deserts; and each individual who practises it, may rely on reaping the benefit of it wherever he goes. A Kalmuc provided with a horse, with arms and equipage, may ramble from one place to another for three months together, without taking with him either money or provisions. Wherever he comes he finds either distant relations or friends, to whom he is attached by the ties of hospitality, from whom he meets with the kindest reception, and is entertained in the best manner their circumstances afford. Perhaps he lodges in the first unknown cottage he finds upon his road; and scarce has he entered it, but his wants are supplied with the most affectionate cordiality. Every stranger, of whatsoever nation, never fails to be well received by a Kalmuc; and he may depend upon having his effects in the greatest security the moment he has put himself under the protection of his host: for to rob a guest is considered by the Kalmucs as the most abominable of all crimes.

When the master of the house sits down to meat in company with others of inferior rank, he begins indeed by serving himself and his family, but whatever remains is distributed among the assistants. When they smoke tobacco, the pipe circulates incessantly from one to another. When any one receives a present either of meat or drink, he divides it faithfully with his companions, even though of inferior rank. But they are much more niggardly of their other effects, and especially of their cattle, and do not willingly give these away except when they hope to receive a suitable return: or if any relation has accidentally suffered the loss of his flocks, he is sure to be most willingly assisted. Perhaps too it may be related as an article of their hospitality, that they abandon their wives to their friends with the greatest facility, and in general they are very little inclined to jealousy. Kalmucs.

Their robberies are never committed upon their equals, and even the greater part of the rapine exercised on other tribes is founded on hatred or national quarrels; neither do they willingly attempt this by open force, but prefer the machinations of cunning, which are so natural to them. It must also be confessed, that it is only those that live with princes, and in camps where these hold their courts, or their priests, that are most addicted to these practices; while the common people, satisfied with the pleasures of the pastoral life, spend their days in innocent simplicity, and never attack the property of another till forced by necessity, or led by their superiors who show them the example.

The Kalmucks are very faithful to their lawful prince; they endure every sort of oppression, and yet are with difficulty induced to revolt; but if they belong to a prince who has not become so by right of succession, they very easily rebel. They honour old age. When young men travel with such as are older than themselves, they take upon them the whole care of the cattle as well as of the feast. They are exceedingly prudent in matters that relate to their sovereign or their nation, or which are recommended to their direction by the priests, to whom they yield an unreserved obedience.

The moveable habitations of the Kalmucs are those felt huts with a conical roof in use among all the roaming Asiatics. The truly ingenious invention of these tents was undoubtedly conceived in the eastern parts of Asia, and most probably by the Mongul nations. As they can be entirely taken to pieces and folded in a small compass, they are very useful, and perfectly agree with the migratory life of these people, who are still ignorant of the use of carriages. The frame of these huts, and the felt they are covered with, though made as light as possible, yet are a sufficient load for a camel or two oxen. But the capacity of these huts, their warmth in winter, their strength in resisting tempests and excluding rain, abundantly compensate for this inconvenience. The wood endures many years; and though the felt begins to break into holes in the second year, the common people, who do not consider it as disgraceful to have them mended and patched, make them serve a good deal longer. The huts are in general use from the prince down to the meanest Kalmuc, differing only in size and in the embellishments within. In winter, they are warm even when heated with the dried excrements of their cattle, to which they are often obliged to have recourse, for want

Kalmucs. want of other combustibles, in many places of the deserts which are destitute of wood. In summer they remove the felt to enjoy the fresh air.

The master of the tent has his bed placed opposite to the door behind the fire place. The bedsteads are low and made of wood. The rich adorn their beds with curtains, and spread carpets or felt upon the ground. When a Kalmuc possesses an idol, he places it near the head of his bed, and sets before it several small consecrated cups full of water, milk, or other food. Before this sort of altar he fixes in the ground the trunk of a tree, on which he places a large iron basin destined to receive the libations of all the drink he makes use of in a day. On festivals the idol is decorated, the lamps are lighted, and perfumes burnt before it.

The riches of the Kalmucs, and their whole means of subsistence, depend on their flocks, which many of them reckon by hundreds, and even by thousands. A man is thought capable of living on his possessions when he is master of ten cows with a bull, eight mares with a stallion. The animals they have in greatest abundance are horses, horned cattle, and sheep. Camels, which require time and pains to rear, cannot multiply much with them; they are besides too delicate; and it is only the rich or the priests who possess any of them. Their horses are but small, too weak for the draught, and too wild: but they do not yield to any in swiftness, and support with ease the weight of a man. They may be made to gallop for several hours successively without injury; and when necessity requires it, they can pass twice 24 hours without drinking. They have a little hoof, but very hard; and they may be used at all times without being shod. In this country the horses live and perpetuate themselves without any assistance from man. The Kalmucs castrate the greater part of their male foals, and at the same time slit their nostrils, that they may breathe more freely when they run. The stallions are never separated from the mares, that there may be always plenty of milk. The stallions are leaders of the herd, and often wander at a distance into the deserts at the head of their females, defending them from the wolves with the greatest intrepidity. The Kalmucs have the art of breaking a young horse without using a bridle. They seize him before he is two years old by means of a noose fixed to the end of a long pole; an instrument they use in taking their riding horses which feed in the midst of the herd. They put no saddle at first on the colt they mean to break, but tie a strait girth round his body; by the help of which the horseman can keep himself firm. When he is mounted, the horse is abandoned to his fury: they allow him to run and agitate himself as much as he pleases on the open plain till he is fatigued. The horseman is solicitous only to keep himself fast; and when the horse begins to abate of his impetuosity, he urges him again with the whip till his strength is almost gone: he is then saddled and bridled, and made to go for some time at a moderate pace; after which he is entirely tamed.

The horned cattle of the Kalmucs are of a beautiful shape. They keep more bulls than are necessary for the cows, and employ a great number of them as beasts of burden for carrying their houses and their other furniture from place to place. They think a bull equal to 50 cows. These and the mares give milk only while they suckle their calves or their foals, which are accordingly kept close to the tents during the day, and only suffered to suck freely during the night; a practice which the Kalmucs pretend makes their cattle stronger and more durable. They generally milk their mares three or four times a-day, and sometimes every two hours when the herbage is abundant. The cows are milked but twice a-day. Kalmucs.

The Kalmuc sheep are of the same species with those found in all Great Tartary, having large tails like a bag, exceedingly fat, and which furnish a suet as soft as butter. They have also large pendant ears, and their head is much arched. Their wool is coarse, and the ewes seldom have horns. One ram is sufficient for a hundred ewes. Little use is made of the milk. The wool is fit for nothing but to make felt for the tents. A great many sheep die during winter, and a greater number still of the early lambs: the skins of which are wrought into those fine furs so much esteemed in Russia and foreign parts.

Camels belong only to the rich; for they are very dear, multiply very slowly, and are subject to many diseases. The deserts of the Wolga, and almost all those of the southern parts of Great Tartary, furnish excellent pasture for these animals; but they require not only much attention in winter, but they must be continually under the eye of the herdsmen; for notwithstanding the advantage of their stature, they are of all animals least able to defend themselves against the wolf. They are guarded with much care against the violence of the cold and the winds of winter; nevertheless many of them die of a consumption accompanied with a diarrhœa, occasioned most probably by the moisture of their pasture and of the season. This disease, for which no remedy has been found, makes them languish for six months or more. They are in general so delicate, that a slight wound or blow often proves fatal to them. Besides, no animal is so much tormented with insects; and they often die in summer of those they swallow in eating the leaves of the oak and of the birch. The *meloe proscarabæus*, which covers all the plants in many of those places where they feed, is generally fatal to them. In spring, when they cast their hair, and which falls at once from every part of their body, they are exposed to the bite of the spider-scorpion, an animal very common in southern countries. The wound inflicted by this insect on the skin thus naked is so venomous, that the camel dies of it in less than eight days, sometimes in three. In winter, and especially after rutting time, which happens at the end of March, the camel becomes lean and weak; the bunch upon their back grows flabby, and hangs down upon the side, nor does it recover its plumpness till summer.

Camels milk is thick, unctuous, and of a saltish taste, especially when the animals frequent pastures abounding with saline plants; and this last property makes the Kalmucs fond of it to tea. They make use of the hair for stuffing cushions, and for making ropes, packthread, and felt. It may be wrought into the most beautiful camlets, or into the finest and softest cloths. The camels with two bunches are a very uneasy

Kalmucs. easy seat to the person who mounts them; their trot is so heavy, and even their walk so rude, that he receives the most violent shocks at every step.

When a Kalmuc horde intends to remove in search of fresh pasture, which in summer necessarily happens every four, six, or eight days, people are in the first place despatched to reconnoitre the best place for the khan or prince, for the lama, and for the huts containing the idols. These begin the march, and are followed by the whole troop, each choosing for himself the place he thinks most convenient. The camel that is loaded with the most precious furniture is decorated with little bells, the rest march in a string one behind another, and the bulls with burdens are driven on before. On these days the women and girls dress themselves in their best clothes, and lay on abundance of paint. They have the charge, together with the boys, of leading the flocks and the beasts of burden; and on the road they beguile the tediousness of the journey with their songs.

The Kalmucs are supplied by their flocks with milk, cheese, butter, and flesh, which are the principal articles of their food. With regard to the last, they are so little squeamish, that they not only eat the flesh of their own diseased cattle, but that of almost every sort of wild beast, and the poor will even feed upon carrion. They eat, however, the roots and stalks of many plants; such as the bulbous-rooted chervil and dandelion, &c. which they use both boiled and raw.

Their ordinary drink is the milk of mares or cows; but the former is for several reasons preferred. This, when fresh, has indeed a very disagreeable taste of garlic: but besides that it is much thinner than cow milk, it takes as it grows sour a very agreeable vinous flavour; it yields neither cream nor curd, but furnishes a very wholesome refreshing beverage, which sensibly inebriates when taken to excess. They never make use of new milk, and still less of milk or of water that have not been boiled. Their milk is boiled as soon as it is taken from the animal; when it is cold it is poured into a large leathern bag, in which there remains as much of the old milk as is sufficient to turn the new quantity sour, for they never think of cleansing those bags; and as the inside is lined with a crust deposited by the caseous part of the milk and other impurities, it is easy to imagine that a nauseous smell must exhale from them. But this is precisely the circumstance in which the secret consists of communicating to the milk a vinous fermentation.

In summer, and as often as the Kalmucs procure much milk from their flocks, they never fail to intoxicate themselves continually with the spirituous liquor which they know how to distil from it. Mares milk is the most spirituous; and the quantity meant to be distilled remains twenty-four hours in summer, and three or four days in winter, in those corrupted bags we mentioned, to prepare it for the operation. The cream is left, but the butter which forms at top is taken off and reserved for other purposes. Cows milk yields one-thirtieth part, and mares milk one-fifteenth part, of spirit. This liquor is limpid and very watery, and consequently does not take fire, but is capable of being long kept in glass bottles. The rich Kalmucs increase its strength by a second distillation.

These people are exceedingly fond of tea and tobacco. The former is so dear, as it comes to them from China by the way of Russia, that the poor people supply its place with various wild plants; such as a species of liquorice, the seed of the sharp-leaved dock, the roots of wild angelica, and the seed of the Tartarian maple. Kalmucs || Kamsin.

The Kalmucs are excellent horsemen. Their arms are lances, bows and arrows, poniards, and crooked sabres, though the rich have fire arms. They wear, when at war, coats of mail, which cost fifty horses, and their helmets are gilded at top. They are fond of falconry, and hunting of all sorts is their principal amusement. Their passion for play, especially with those who play cards, is carried to as great excess among them as in any other nation.

The greater part of their time is spent in diversions; and however miserable their manner of life may seem to us, they are perfectly happy with it. They cannot endure for any time the air of a close room; and think our custom of living in houses insupportable. The greatest part of them, notwithstanding of the apparent unhealthiness of their way of life, arrive at a vigorous old age; their diseases are neither frequent nor dangerous. Men of 80 or 100 years old are not uncommon; and at that age they can still very well endure the exercise of riding. Simple food, the free air which they constantly breathe, a hardy vigorous constitution, continual exercise without severe labour, and a mind free from care, are the natural causes of their health and longevity.

It is very remarkable, that a migratory people, whose manner of life seems so congruous to the natural liberty of mankind, should have been subjected from time immemorial to the unlimited authority of an absolute sovereign. The Monguls of Asia afford the only instance of it; for neither written records nor ancient tradition have preserved the smallest trace of their ever having enjoyed a state of independence. On the contrary, they acknowledge that they have at all times been subject to khans and princes, whose authority has been transmitted to them by succession, and is considered as a right perfectly established, sacred, and divine.

KAMAKURA, a famous island of Japan, about three miles in circumference, lying on the south coast of Niphon. It is here they confine their great men when they have committed any fault. The coast of this island is so steep, that they are forced to be lifted up by cranes.

KAMEEL, KAMEL, or *Camel*, a machine for lifting ships. See CAMEL.

KAMINIECK, a very strong town of Poland, and capital of Podolia, with two castles and a bishop's see. It was taken by the Turks in 1672, who gave it back in 1690, after the treaty of Carlowitz. It is seated on a craggy rock, in E. Long. 26. 45. N. Lat. 48. 58.

KAMSIN, the name of a hot southerly wind common in Egypt, of which we find the following description in M. Volney's Travels.—These winds, says he, are known in Egypt by the general name of *winds of 50 days*; not that they last 50 days without intermission, but because they prevail more frequently in the 50 days preceding and following the equinox. Travellers

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vellers have mentioned them under the denomination of *poisonous winds*, or, more correctly, *hot winds of the desert*. Such in fact is their quality; and their heat is sometimes so excessive, that it is difficult to form any idea of its violence without having experienced it; but it may be compared to the heat of a large oven at the moment of drawing out the bread. When these winds begin to blow, the atmosphere assumes an alarming aspect. The sky, at other times so clear in this climate, becomes dark and heavy; the sun loses his splendour and appears of a violet colour; the air is not cloudy, but gray and thick, and is in fact filled with an extremely subtile dust, which penetrates everywhere. This wind, always light and rapid, is not at first remarkably hot, but it increases in heat in proportion as it continues. All animated bodies soon discover it by the change it produces in them. The lungs, which a too rarefied air no longer expands, are contracted, and become painful. Respiration is short and difficult; the skin parched and dry, and the body consumed by an internal heat. In vain is recourse had to large draughts of water; nothing can restore perspiration. In vain is coolness sought for; all bodies in which it is usual to find it deceive the hand that touches them. Marble, iron, water, notwithstanding the sun no longer appears, are hot. The streets are deserted, and the dead silence of night reigns everywhere. The inhabitants of towns and villages shut themselves up in their houses, and those of the desert in their tents or in wells dug in the earth, where they wait the termination of this destructive heat. It usually lasts three days, but if it exceeds that time it becomes insupportable. Woe to the traveller whom this wind surprises remote from shelter: he must suffer all its horrible effects, which sometimes are mortal. The danger is most imminent when it blows in squalls; for then the rapidity of the wind increases the heat to such a degree as to cause sudden death. This death is a real suffocation; the lungs being empty are convulsed, the circulation is disordered, and the whole mass of blood driven by the heart towards the heart and breast; whence the hæmorrhagy at the nose and mouth which happens after death. This wind is especially destructive to persons of a plethoric habit, and those in whom fatigue has destroyed the tone of the muscles and the vessels. The corpse remains a long time warm, swells, turns blue, and soon becomes putrid. These accidents are to be avoided by stopping the nose and mouth with handkerchiefs; an efficacious method likewise is that practised by the camels. On this occasion these animals bury their noses in the sand, and keep them there till the squall is over. Another quality of this wind is its extreme aridity, which is such, that water sprinkled on the floor evaporates in a few minutes. By this extreme dryness it withers and strips all the plants; and by exhaling too suddenly the emanations from animal bodies, crisps the skin, closes the pores, and causes that feverish heat which is the constant effect of suppressed perspiration.

KAMTSCHATKA, KAMSCHATKA, or *Kamchatka*; a large peninsula in the north-eastern part of Asia, lying between 51° and 62° of north latitude, and between 173° and 182° of east longitude from the isle of Ferro. It is bounded on the east and south by the sea of Kamtschatka, on the west by the seas of Ochotsk and Penshinsk, and on the north by the country of the Koriacs.

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This peninsula was not discovered by the Russians before the end of the last century. It is probable, however, that some of that nation had visited Kamtschatka before the time above mentioned. For when Volodomir Atlassoff entered upon the conquest of this peninsula in 1697, he found that the inhabitants had already some knowledge of the Russians. A common tradition as yet prevails among them, that long before the expedition of Atlassoff, one Feodotoff and his companions had resided among them, and had intermarried with the natives; and they still show the place where the Russian habitations stood. None of the Russians remained when Atlassoff first visited Kamtschatka. They are said to have been held in great veneration, and almost deified by the natives: who at first imagined that no human power could hurt them, until they quarrelled among themselves, and the blood was seen to flow from the wounds which they gave each other: and soon after, upon a separation taking place, they were all killed by the natives. —These Russians were thought to be the remains of a ship's crew who had sailed quite round the north-eastern promontory of Asia called *Tschukutskoi Noss*. The account we have of this voyage is as follows.— In 1648, seven kotches or vessels sailed from the mouth of the river Kovyma or Kolyma, lying in the Frozen ocean in about 72° north latitude, and 173° or 174° east longitude from Ferro, in order to penetrate into the eastern ocean. Four of these were never more heard of; the remaining three were commanded by Simon Deshneff, Gerasim Ankudinoff, two chiefs of the Cossacs, and Feodotoff Alexeef, head of the Promyshlenics, or wandering Russians, who occasionally visited Siberia. Each vessel was probably manned with about 30 persons. They met with no obstructions from the ice; but Ankudinoff's vessel was wrecked on the promontory above mentioned, and the crew were distributed on board the two remaining vessels. These two soon after lost sight of each other, and never afterwards rejoined. Deshneff was driven about by tempestuous winds till October, when he was shipwrecked on the northern part of Kamtschatka. Here he was informed by a woman of Yakutsk, that Feodotoff and Gerasim had died of the scurvy; that part of the crew had been slain; and that a few had escaped in small vessels, who had never afterwards been heard of; and these were probably the people who, as we have already mentioned, settled among the Kamtschatkans.

1 When first visited by the Russians.

As the inhabitants of this country were neither numerous nor warlike, it required no great force to subdue them; and in 1711 the whole peninsula was finally reduced under the dominion of the Russians.—For some years this acquisition was of very little consequence to the crown, excepting the small tribute of furs exacted from the inhabitants. The Russians indeed occasionally hunted in this peninsula, foxes, wolves, ermines, sables, and other animals, whose skins form an extensive article of commerce among the eastern nations. But the fur trade carried on from thence was very inconsiderable, until the series of islands mentioned in the next article were discovered; since which time the quantities of furs brought from these

2 Subdued by them.

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these islands have greatly increased the trade of Kamtschatka, and rendered it an important part of the Russian commerce.

3 Country described.

The face of the country throughout the peninsula is chiefly mountainous. It produces in some parts birch, poplars, elders, willows, underwood, and berries of different sorts. Greens and other vegetables are raised with great facility; such as white cabbage, turnips, radishes, beet root, carrots, and some cucumbers. Agriculture is in a very low state, owing chiefly to the nature of the soil and the severe hoarfrosts: for though some trials have been made with respect to the cultivation of grain, and oats, barley, and rye, have been sown, yet no crop has ever been procured sufficient in quantity or quality to answer the trouble of raising it. Hemp, however, has of late years been cultivated with great success.—Every year a vessel belonging to the crown sails from Ochotsk to Kamtschatka laden with salt, provisions, corn, and Russian manufactures; and returns in June or July of the following year with skins and furs.

4 Volcanoes.

Many traces of volcanoes have been observed in this peninsula; and there are some mountains which are in a burning state at present. The most considerable of these is situated near the middle of the peninsula. In 1762, a great noise was heard issuing from the inside of that mountain, and flames of fire were seen to burst from different parts. These flames were immediately succeeded by a large stream of melted snow water, which flowed into the neighbouring valley, and drowned two natives who were there on a hunting party. The ashes and burning matters thrown from the mountain were spread over a surface of 300 versts. In 1767 was another discharge, but less considerable. Every night flames of fire were observed streaming from the mountain; and considerable damage was done by the eruption which attended them. Since that year no flames have been seen; but the mountain emits a constant smoke.

5 Population, &c.

Kamtschatka is divided by the Russians into four districts; and the government of the whole is dependent upon, and subject to, the inspection of the chancery of Ochotsk. The whole Russian force stationed in this peninsula amounts to no more than 300 men. The present population of Kamtschatka is very small, amounting to scarce 4000 souls. Formerly the inhabitants were more numerous; but in 1768, the smallpox carried off 5368 persons. There are now only about 700 males in the whole peninsula who are tributary, and a few more than 100 in the neighbouring islands, called the *Kurile Isles*, who are subject to Russia. The fixed annual tribute consists in 279 sables, 464 red foxes, 50 sea otters with a dam, and 38 cub otters. All furs exported from Kamtschatka pay a duty of 10 per cent. to the crown; the tenth part of the cargoes brought from the neighbouring islands is also delivered into the customs.

6 Manners, &c. of the natives.

Many of the natives of Kamtschatka have no fixed habitations, but wander from place to place with their herds of rein deer; others have settled habitations, and reside upon the banks of the rivers and the shore of the Penschinsk sea, living upon fish and sea animals, and such herbs as grow upon the shore: the former dwell in huts covered with deer skins; the latter in places dug out of the earth. The natives are divided into three different peoples, namely, the Kamtschatkans, Koreki, and Kuriles. The Kamtschatkans live upon the south side of the promontory of Kamtschatka: the Koreki inhabit the northern parts on the coast of the Penschinska sea, and round the eastern ocean almost to the river Anadir, whose mouth lies in that ocean almost in 68° N. Lat.: the Kuriles inhabit the islands in that sea, reaching as far as those of Japan. The Kamtschatkans have this particular custom, that they endeavour to give every thing a name in their language which may express the property of it; but if they do not understand the thing quite well themselves, then they take a name from some foreign language, which perhaps has no relation to the thing itself; as, for example, they call a priest *bogbog*, because probably they hear him use the word *bogbog*, "God;" bread they call *brightatin augsh*, that is Russian root; and thus of several other words to which their language is a stranger.

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It appears probable, that the Kamtschatkans lived formerly in Mungalia beyond the river Amur, and made one people with the Mungals; which is farther confirmed by the following observations, such as the Kamtschatkan having several words common to the Mungal Chinese language, as their terminations in ong, ing, oang, chin, cha, ching, ksii, ksung; it would be still a greater proof, if we could show several words and sentences the same in both languages. The Kamtschatkans and Mungals also are both of a middling stature, are swarthy, have black hair, a broad face, a sharp nose, with the eyes falling in, eyebrows small and thin, a hanging belly, slender legs and arms; they are both remarkable for cowardice, boasting, and slavishness to people who use them hard, and for their obstinacy and contempt of those who treat them with gentleness.

Although in outward appearance they resemble the other inhabitants of Siberia, yet the Kamtschatkans differ in this, that their faces are not so long as the other Siberians; their cheeks stand more out, their teeth are thick, their mouth large, their stature middling, and their shoulders broad, particularly those people who inhabit the sea coast.

Both men and women plait their hair in two locks, binding the ends with small ropes. When any hair starts out, they sew it with threads to make it lie close; by this means they have such a quantity of lice, that they can scrape them off by handfuls, and they are nasty enough even to eat them. Those that have not natural hair sufficient, wear false locks, sometimes as much as weigh 10 pounds, which makes their head look like a haycock. But many of the women already wear their hair, and are nearly dressed in the same manner as the Russians, whose language is the most prevalent. It may be said in praise of the Russians, that though they have established a despotic government in this rude climate, it is tempered by a mildness and equity which prevent its inconveniences from being felt. The taxes levied on the Kamtschadales ase so trifling, that they may be regarded only as a mark of gratitude to the sovereign. La Perouse considered the people of this peninsula as the same with those of the bay of Castries, their mildness and probity being similar, and their persons very little different.

7 Trade.

Their trade is almost entirely confined to procure the immediate necessaries and conveniencies of life.

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They sell the Koreki sables, fox and white dog skins, dried mushrooms, and the like, in exchange for clothes made of deer skins and other hides. Their domestic trade consists in dogs, boats, dishes, troughs, nets, hemp yarn, and provisions: and this kind of barter is carried on under a great show of friendship; for when one wants any thing that another has, he goes freely to visit him, and without any ceremony, makes known his wants, although perhaps he never had any acquaintance with him before: the host is obliged to behave according to the custom of the country, and give his guest what he has occasion for; but he may afterwards return the visit, and must be received in the same manner. They fill almost every place in heaven and earth with different spirits, and offer them sacrifices upon every occasion. Some carry little idols about them, or have them placed in their dwellings.

8 Cannot number above twenty.

It is very diverting to see them attempt to reckon above ten: for having reckoned the fingers of both hands, they clasp them together, which signifies ten; then they begin with their toes, and count to twenty; after which they are quite confounded, and cry, Metcha? that is, Where shall I take more? They reckon ten months in the year, some of which are longer and some shorter; for they do not divide them by the changes of the moon, but by the order of particular occurrences that happen in those regions. They commonly divide our year into two, so that winter is one year and summer another: the summer year begins in May, and the winter in November. They do not distinguish the days by any particular appellation, nor form them into weeks or months, nor yet know how many days are in the month or year. They mark their epochs by some remarkable thing or other; such as the arrival of the Russians, or the first expedition to Kamtschatka.

9 Their laws.

If any one kills another, he is to be killed by the relations of the person slain. They burn the hands of people who have been frequently caught in theft; but for the first offence the thief must restore what he hath stolen, and live alone in solitude, without expecting the assistance of others. They have no disputes about their land or their huts, every one having land and water more than sufficient for his wants. They think themselves the happiest people in the world, and look upon the Russians who are settled among them with contempt. However, this notion begins to change; for the old people who are confirmed in their customs drop off, and the young ones being converted to the Christian religion, adopt the customs of the Russians, and despise the barbarity and superstition of their ancestors. The Greek religion has been established among them without persecution or violence. The vicar of Paratounka is the son of a native by a Russian woman. The people have inured themselves to the extremes of heat and cold, by going into vapour baths, coming out covered with perspiration, and then rolling themselves in the snow.

In every ostrog or large village, by order of her imperial majesty, is appointed a chief, who is sole judge in all cases except those of life and death; and not only those chiefs, but even the common people, have their chapels for worship. Schools are also erected in almost every village, to which the Kamtschatkans send their children with great pleasure; by this means it is to be hoped that barbarity will be in a short time rooted out from amongst them.

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10 Manner of building their huts.

Under the name of *ostrog* is understood every habitation consisting of one or more huts, all surrounded by an earthen wall or pallisado.—The huts are built in the following manner: they dig a hole in the earth about five feet deep, the breadth and length proportioned to the number of people designed to live in it. In the middle of this hole they plant four thick wooden pillars; over these they lay balks, upon which they form the roof or ceiling, leaving in the middle a square opening which serves them for a window and chimney; this they cover with grass and earth, so that the outward appearance is like a round hillock; but within they are an oblong square, with the fire in one of the long sides of the square: between the pillars round the walls of their huts they make benches, upon which each family lies separately; but on that side opposite to the fire there are no benches, it being designed for their kitchen furniture, in which they dress their victuals for themselves and dogs. In those huts where there are no benches, there are balks laid upon the floor, and covered with mats. They adorn the walls of their huts with mats made of grass. They enter their huts by ladders, commonly placed near the fire hearth; so that, when they are heating their huts, the steps of the ladder become so hot, and the smoke so thick, that it is almost impossible for a stranger to go up or down without being burnt, and even stifled to death; but the natives find no difficulty in it: and though they can only fix their toes on the steps of the ladder, they mount like squirrels; nor do the woman hesitate to go through this smoke with their children upon their shoulders, though there is another opening through which the women are allowed to pass; but if any man pretend to do the same, he would be laughed at. The Kamtschatkans live in these huts all the winter, after which they go into others called *balagans;* they serve them not only to live in during the summer, but also for magazines. They are made in the following manner: Nine pillars, about two fathoms long, or more, are fixed in the ground, and bound together with balks laid over them, which they cover with rods, and over all lay grass, fastening spars, and a round sharp roof at top, which they cover with bramble, and thatch with grass. They fasten the lower ends of the spars to the balks with ropes and thongs, and have a door on each side, one directly opposite to the other. They make use of the same kind of huts to keep their fish, &c. till winter comes on, when they can more easily remove it; and this without any guard, only taking away the ladders. If these buildings were not so high, the wild beasts would undoubtedly plunder them; for notwithstanding all their precaution, the bears sometimes climb up and force their way into their magazines, especially in the harvest, when the fish and berries begin to grow scarce.

The southern Kamtschatkans commonly build their villages in thick woods and other places which are naturally strong, not less than 20 versts from the sea; and their summer habitations are near the mouths of the rivers; but those who live upon the Penschinska sea and the eastern ocean build their villages very near the shore. They look upon that river near which their

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their village is situated as the inheritance of their tribe.

11 Method of kindling fire.

In order to kindle fire, they use a board of dry wood with round holes in the sides of it, and a small round stick; this they rub in a hole till it takes fire; and instead of tinder they use dry grass beat soft. These instruments are held in such esteem by the Kamtschatkans, that they are never without them, and they value them more than our steels and flints; but they are excessively fond of iron instruments, such as hatchets, knives, or needles; nay, at the first arrival of the Russians, a piece of broken iron was looked upon as a great present; and even now they receive it with thankfulness, finding use for the least fragment, either to point their arrows, or make darts, which they do by hammering it out cold between two stones. As some of them delight in war, the Russian merchants are forbid to sell them any warlike instruments: but they are ingenious enough to make spears and arrows out of the iron pots and kettles which they buy; and they are so dexterous, when the eye of a needle breaks, as to make a new eye, which they will repeat until nothing remains but the point.

12 Construction of their boats.

The Kamtschatkans make their boats of poplar wood; but the Kuriles not having any wood of their own, make use of what is thrown on shore by the sea, and is supposed to come from the coasts of Japan, China, or America. The northern inhabitants of Kamtschatka, the settled Koreki and Tschukotskoi, for want of proper timber and plank, make their boats of the skins of sea animals. They sew the pieces together with whales beards, and caulk them with moss or nettles beat small. These boats hold two persons; one of which sits in the prow, and the other in the stern. They push them against the stream with poles, which is attended with great trouble: when the current is strong, they can scarcely advance two feet in ten minutes; notwithstanding which, they will carry these boats, fully loaded, sometimes twenty versts, and when the stream is not very strong, even thirty or forty versts. The larger boats carry thirty or forty pood; when the goods are not very heavy, they lay them upon a float or bridge resting upon two boats joined together. They use this method in transporting their provisions down the stream, and also to and from the islands.

13 Of their clothes.

Their clothes for the most part are made of the skins of deer, dogs, several sea and land animals, and even of the skins of birds; those of different animals being frequently joined in the same garment. They make the upper garment after two fashions; sometimes cutting the skirts all of an equal length, and sometimes leaving them long behind in form of a train, with wide sleeves of a length to come down below the knee, and a hood or caul behind, which in bad weather they put over their heads below their caps; the opening above is only large enough to let their heads pass: they sew the skins of dogs feet round this opening, with which they cover their faces in cold stormy weather; and round their skirts and sleeves they put a border of white dog skin; upon their backs they sew the small shreds of skins of different colours. They commonly wear two coats: the under coat with the hair side inwards, the other side being dyed with alder; and the upper with the hair outwards. For the upper garment they choose black, white, or speckled skins, the hair of which is most esteemed for the beauty of its colour.

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Men and women without distinction use the abovementioned garments, their dress only differing in their under clothing and in the covering of their feet and legs. The women have an under garment, which they commonly wear at home in the house, consisting of breeches and a waistcoat sewed together. The breeches are wide like those of the Dutch skippers, and tie below the knee; the waistcoat is wide above, and drawn round with a string. The summer habits are made of dressed skins without hair: their winter garment is made of deer or stone-ram skins with the hair on. The undress or household habit of the men is a girdle of leather with a bag before, and likewise a leathern apron to cover them behind; these girdles are sewed with hair of different colours. The Kamtschatkans used formerly to go a hunting and fishing during the summer in this dress; but now this fashion is changed, and they wear linen shirts, which they buy from the Russians.

The covering of their feet and legs is made of skins of different sorts: in the summer time, during the rains, they wear the skins of seals with the hair outwards: but their most common covering is the skin of the legs of the rein deer, and sometimes of the legs of other beasts, the shaggiest they can find, to preserve them against the cold. But the buskins which both the Cossacks and Kamtschatkans use in their finest dress are made in the following manner: the sole is of white seal skin, the upper part of fine white leather, the hind quarters of white dog skin; what comes round the legs is of dressed leather or dyed seal skin; the upper parts are embroidered. These buskins are so extraordinary, that if a bachelor is observed to wear them, he is immediately concluded to be upon a scheme of courtship.

They wear the same sort of caps as the people of Yakutski. In summer they have a sort of hats of birch bark tied about their head. The Kuriles use in the summer time caps made of plaited grass. The women's head dress is the perukes that we formerly mentioned; and these were so dear to them, that when they came to be Christians they were with difficulty prevailed upon to quit this dress for one more decent: however, at present, round the Russian settlements, all is entirely changed, the women wearing shirts, ruffles, waistcoats, caps, and ribbands; which change nobody now complains of except the very old people. The women do all their work in mittens; they formerly never washed their faces, but now they use both white and red paint: for white paint they make use of a rotten wood; and for red a sea plant, which they boil in seals fat, and rubbing their cheeks with it, make them very red. They dress most in the winter time, especially when they either receive or pay visits.

The common clothes for a Kamtschatkan and his family will not cost him less than 100 rubles; for the coarsest worsted stockings, which cost in Russia 20 kopeeks, cannot be bought here for less than a ruble; and all other things are sold in the same proportion. The Kuriles are more able to buy good clothes than the Kamtschatkans: for they can purchase for one sea beaver as much as the Kamtschatkans can for twenty foxes; and one beaver costs the Kuriles no more trouble than five foxes do the Kamtschatkans; for he must

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be a good hunter who catches more than ten foxes in the winter; and a Kurile thinks himself unlucky if he doth not catch three beavers in the season; besides which, great numbers are thrown upon the shore by storms.

14 Their diet.

The Kamtschatkans divide their fish into six parts; the sides and tails are hung up to dry; the back and thinner part of the belly are prepared apart, and generally dried over the fire; the head is laid to sour in pits, and then they eat it like salt fish, and esteem it much, though the stink is such that a stranger cannot bear it; the ribs and the flesh which remain upon them they hang up and dry, and afterwards pound for use; the larger bones they likewise dry for food for their dogs: in this manner all these different people prepare the yokola, which is their principal food, or, one may say, household bread; and they eat it for the most part dry.

Their second favourite food is caviare, or the roes of fish, which they prepare three different ways. They dry the roe whole in the air; or take it out of the skin which envelopes it, and spreading it upon a bed of grass, dry it before the fire; or, lastly, make rolls of it with the leaves of grass, which they also dry. They never take a journey or go to hunting without dry caviare; and if a Kamtschatkan has a pound of this, he can subsist without any other provision a great while; for every birch and alder tree furnishes him with bark, which with his dried caviare makes him an agreeable meal; but they cannot eat either separately, for the caviare sticks like glue to the teeth; and it is almost impossible to swallow the bark, chewed ever so long by itself. There is still a fourth method, which both Kamtschatkans and Koreki use in preparing their caviare: the first, having covered the bottom of a pit with grass, they throw the fresh caviare into it, and leave it there to grow sour: the Koreki tie theirs in bags, and leave it to sour; this is esteemed their most delicate dish.

There is a third sort of diet, called by the Kamtschatkans *chupriki*, which is prepared in this manner: in their huts, over the fire-place, they make a bridge of stakes, upon which they lay a heap of fish, which remains there, until the hut becomes as warm as a bagnio. If there is no great thickness of fish, one fire serves to dress it; but sometimes they are obliged to make two, three, or more fires. Fish dressed in this manner is half roasted half smoked, but has a very agreeable taste, and may be reckoned the best of all the Kamtschatkan cookery: for the whole juice and fat is prepared with a gradual heat, and kept in by the skin, from which they may when done enough be easily separated; and as soon as it is thus dressed, they take out the guts, and spread the body upon a mat to dry: this they afterwards break small, and putting it into bags, carry it along with them for provision, eating it like the yokola.

The Kamtschatkans have a dish which they esteem very much, called *huigul*: it is fish laid to grow sour in pits; and though the smell of it is intolerable, yet the Kamtschatkans esteem it a perfume. This fish sometimes rots so much in the pits, that they cannot take it out without ladles; in which case indeed they use it for feeding their dogs.

As for the flesh of land and the larger sea animals, they boil it in their troughs with several different herbs and roots; the broth they drink out of ladles and bowls, and the meat they take out upon boards, and eat in their hands. The whale and sea horse fat they also boil with roots.

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There is a principal dish at all their feasts and entertainments, called *selaga*, which they make by pounding all sorts of different roots and berries, with the addition of caviare, and whale and seals fat.

Before the conquest, they seldom used any thing for drink but plain water, unless when they made merry; then they drank water which had stood some time upon mushrooms. At present they drink spirits as fast as the Russians. After dinner they drink water: and when they go to bed at night, set a vessel of water by them, with the addition of snow or ice to keep it cold, and always drink it up before morning. In the winter time, they amuse themselves frequently by throwing handfuls of snow into their mouths: and the bridegrooms, who work with the fathers of their future brides, find it their hardest task to provide snow for the family in summer time; for they must bring it from the highest hills, be the weather what it will, otherwise they would never be forgiven.

15 Method of travelling with dogs.

The Kamtschatkans commonly travel in sledges drawn by dogs. The animals used for this purpose differ very little from the common house dogs; they are of a middling size, of various colours, though there seem to be more white, black, and gray, than of any other. In travelling, they make use of those that are castrated, and generally yoke four to a sledge. They drive and direct their dogs with a crooked stick about four feet long, which they sometimes adorn with different coloured thongs; this is looked upon as a great piece of finery. They drive their sledge sitting upon their right side, with their feet hanging down; for it would be looked upon as a disgrace for a man to sit down at the bottom of the sledge, or to make use of any person to drive him, nobody doing this but the women. It is very difficult to travel in these sledges; for unless a man keeps the exact balance, he is liable every moment from the height and narrowness of them to be overturned: in a rugged road this would be very dangerous, as the dogs never stop till they come to some house, or are entangled by something upon the road; especially in going down steep hills, when they run with all their force, and are scarcely to be kept in; for which reason, in descending any great declivity, they unyoke all the dogs except one, and lead them softly down. They likewise walk up hills; for it is as much as the dogs can do to drag up the sledge empty. After a deep snow, before it has been hardened by a frost, there is no travelling with dogs till a road be made, which is effected by a man going before upon snow shoes, whom they call *brodovskika*. The snow shoes are made of two thin boards, separated in the middle, bound together at the ends, and with the fore part bent a little upwards. The brodovskika, having one of these shoes upon each foot, leaves the dogs and sledge, and going on clears the road for some way; then returning, leads forward the dogs and sledge so far as the road is made; a method which he must continue till he comes to some dwelling house. This is very laborious; and it happens so often, that no driver ever sets out without his snow shoes. When a storm of driven

snow

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snow surprises them, they are obliged with all haste to seek the shelter of some wood, and stay there as long as the tempest lasts, which sometimes is a whole week. If they are a large company, they dig a place for themselves under the snow, and cover the entry with wood or brambles. Sometimes they hide themselves in caves or holes of the earth, wrapping themselves up in their furs; and when thus covered, they move or turn themselves with the greatest caution lest they should throw off the snow, for under that they lie as warm as in their common huts: they only require a breathing place; but their clothes must not be tight or hard girt about them, for then the cold is unsufferable. Another danger attending travellers is, that in the severest frost several rivers are not quite frozen over; and as the roads for the most part lie close upon the rivers, the banks being very steep, scarce a year passes without many being drowned. A disagreeable circumstance also to those who travel in these parts, is their sometimes being obliged to pass through copses, where they run the risk of having their eyes scratched out or their limbs broken; for the dogs always run most violently in the worst roads, and, to free themselves, very often overturn their driver. The best travelling is in the month of March or April, when the snow is turned hard or frozen a little at top; however, there is still this inconvenience attending it, that sometimes travellers are obliged to lodge two or three nights in desert places; and it is difficult to prevail upon the Kamtschatkans to make a fire either for warming themselves or dressing victuals, as they and their dogs eat dried fish, and find themselves so warm wrapped in their furs, that they want no other heat; nay, all the people in this climate bear cold so well, that they sleep in the open air as sound as others in a warm bed, and awake next morning perfectly refreshed and alert. This seems to be so natural to all here, that some of them have been seen to lie down with their backs uncovered against a fire, and notwithstanding the fire has been burnt out long before morning, they continued to sleep on very comfortably, and without any inconvenience.

The bay of Avatscha is described by M. Perouse as the finest, most convenient, and the safest that is to be met with in any part of the world. The entrance is narrow, the bottom is mud, and excellent holding ground. Two vast harbours, one on the eastern, and the other on the western side, are capable of containing all the ships of the French and English navy. The village of St Peter and St Paul is situated on a tongue of land, which forms a little port behind the village, in which three or four vessels might be laid up for the winter. It is found to be in N. Lat. 53. 1. E. Long. 156. 30. from Paris.

Islands in the sea of KAMTSCHATKA. So many of these have been discovered by the Russians, that the existence of almost a continued chain of islands between the continents of Asia and America is now rendered extremely probable. Many further discoveries of great importance to science, however, remain yet to be made. The principal islands already known are the Kurile isles, which stretch south-west towards the coast of China or Japan, and are almost uninhabited; those called *Beering's* and *Copper islands*, the Aleutian isles, and Fox islands, or *Lyssie Ostrova*, lie almost directly east, stretching nearly to 230° of longitude east from Ferro. The first project of making discoveries in that tempestuous sea which lies between Kamtschatka and America was set on foot by Peter the Great of Russia. Captains Beering and Tschirikoff were employed in the undertaking; the former of whom was shipwrecked and died on the island which is still called by his name. As this lies at no great distance from Kamtschatka, the inhabitants of the latter soon ventured over to it, as the sea-otters and other animals of that kind were accustomed to resort thither in great numbers.

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16

Copper island described.

Mednoi Ostroff, or Copper island, which lies in full sight of Beering's island, was next visited. This island has its name from the great quantity of copper with which the north-east coast of it abounds, the only side which is known to the Russians. It is washed up by the sea, and covers the shores in such abundance that many ships might be loaded with it. Perhaps an India trader might make a profitable voyage from thence to China, where this metal is in high demand. This copper is mostly in a metallic or malleable state, and many pieces seem as if they had formerly been in fusion. The island is not high; but has many hillocks, each of which has the appearance of having formerly been a volcano. With this kind of hillocks all the islands in the sea of Kamtschatka abound, insomuch that not a single island, though ever so small, was found without one; and many of them consisted of nothing else. In short, all the chain of islands above mentioned may without any stretch of imagination be considered as thrown up by some late volcanoes. The apparent novelty of every thing seems to justify this conjecture: nor can any objection be derived from the vegetable productions with which these islands abound; for the summer after the lower district of Zutphen in Holland was gained from the sea, it was covered over with wild mustard.—All these islands are subject to frequent and violent earthquakes, and abound in sulphur. We are not informed whether any lava is found upon them; but a party-coloured stone as heavy as iron, probably a lava, is mentioned as being found there. From this account it is by no means improbable that the copper above mentioned has been melted in some eruption.

17

Beering's island and the Aleutian isles.

Beering's island is situated east from Kamtschatka, in the 185th degree of longitude; and Copper island about one degree more to the eastward, and in the latitude of 54° north. The former is from 70 to 80 versts long, and stretches from north-west to south-east in the same direction as Copper island. The latter is about 50 versts in length. About 300 versts east by south of Copper island lie the Aleutian isles; of which Attak is the nearest: it is rather larger than Beering's island, and stretches from west to south-east. From thence about 20 versts eastward is situated Semitshi, extending from west to east; and near its extremity is another small island. To the south of the strait which separates the two latter islands, and at the distance of 40 versts from both of them, lies Shimiya in a similar position, and not above 25 versts in length. All these islands lie between 54 and 55 degrees of north latitude.

18

Fox islands.

The Fox islands are situated east-north-east from the Aleutians: the nearest of these, Atchak, is about 800 versts distant; it lies in 56° north latitude, and extends from west-south-west towards east-north-east. It greatly resembles

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resembles Copper island, and is provided with a commodious harbour on the north. From thence all the other islands of this chain stretch in a direction towards north-east by east. The next to Atchak is Amlak, and about 15 versts distant; it is nearly of the same size, and has a harbour on its south side. Next follows Saugagamak, at about the same distance, but somewhat smaller; from thence is 50 versts to Amuchta, a small rocky island; and the latter to Yunaksan, another small island. About 20 versts from Yunaksan there is a cluster of five small islands, or rather mountains, Kigalgist, Kagamila, Tsigulac, Ulaga, and Tana-Unok; and which are therefore called by the Russians *Pat Sopki*, or the Five Mountains. Of these Tana-Unok lies most to the north-east, towards which the western point of Umnak advances within the distance of 20 versts.

Umnak stretches from south-west to north-east; it is 150 versts in length, and has a very considerable bay on the west end of the northern coast, in which there is a small island, or rock, called *Adugak:* and on the south side Shemalga, another rock. The western point of Aghunalashka, or Unalashka, is separated from the east end of Umnak by a strait near 20 versts in breadth. The position of these two islands is similar; but Aghunalashka is much the largest, and is above 200 versts long. It is divided towards the north-east into three promontories, one of which runs out in a westerly direction, forming one side of a large bay on the north coast of the island: the second stretches out north-east, ends in three points, and is connected with the island by a small neck of land. The third, or most southerly one, is separated from the last-mentioned promontory by a deep bay. Near Unalashka towards the east lies another small island called *Shirkin*. About 20 versts from the north-east promontory of Agunalashka lie four islands: the first, Akutan, is about half as big as Umnak; a verst further is the small island Akun; a little beyond is Akunok; and lastly, Kigalga, which is the smallest of these four; and stretches with Akun and Akunok almost from north to south. Kigalga is situated about the 61st degree of latitude. About 100 versts from thence lies an island called *Unimak*, upon which a Russian navigator (Captain Krenitzin) wintered; and beyond it the inhabitants said there was a large tract of country called *Alashka*, of which they did not know the boundaries.

The Fox islands are in general very rocky, without containing any remarkably high mountains: they are destitute of wood; but abound in rivulets and lakes, which are mostly without fish. The winter is much milder than in Siberia; the snow seldom falls before the beginning of January, and continues on the ground till the end of March. There is a volcano in Amuchta, and sulphur is produced on another island; in some others are springs hot enough to boil provisions. Sulphureous flames are also sometimes seen at night upon the mountains of Unalashka.

19 Manners, &c. of the inhabitants.

The Fox islands are tolerably populous in proportion to their size. The inhabitants are entirely free, and pay tribute to no one; they are of a middle stature, and live, both in summer and winter, in holes dug in the earth. No signs of religion were found among them. Several persons indeed pass for sorcerers, pretending to know things past and to come; and are accordingly held in high esteem, but without receiving any emolument. Filial duty and respect towards the aged are not held in estimation by these islanders.—They are not, however, deficient in fidelity towards each other; they are of a lively and cheerful temper, though rather impetuous, and naturally prone to anger. In general, they do not observe any rules of decency; but follow all the calls of nature publicly and without the least reserve. Their principal food consists in fish, and other sea animals, small shell fish, and sea plants; their greatest delicacies are wild lilies and other roots, together with different kinds of berries. When they have laid in a store of provisions, they eat at any time of the day without distinction; but in case of necessity, they are capable of fasting several days together. They seldom heat their dwellings: but when they are desirous of warming themselves, they light a bundle of hay, and stand over it; or else they set fire to train oil, which they pour into a hollow stone. They feed their children when very young with the coarsest flesh, and for the most part raw. If an infant cries, the mother immediately carries it to the sea side, and, be it summer or winter, holds it naked in the water until it is quiet. This custom, it is said, is so far from doing the children any harm, that it hardens them against the cold; and accordingly they go barefooted through the winter without the least inconvenience. They are also trained to bathe frequently in the sea; and it is an opinion generally received among the islanders, that by these means they are rendered bold and fortunate in fishing.

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The men wear shirts made of the skins of cormorants, sea-divers, and gulls; and in order to keep out the rain, they have upper garments of the bladders and other intestines of sea-lions, sea-calves, and whales, blown up and dried. They cut their hair in a circular form quite close to their ears; and shave also a round place on the top. The women, on the contrary, let the hair descend over the forehead as low as the eyebrows, and tie the remaining part in a knot upon the top of the head. They pierce the ears, and hang in them bits of coral, which they get from the Russians. Both sexes make holes in the gristles of their noses, and in the under lips, in which they thrust pieces of bone, and are very fond of such kind of ornaments.—They mark also and colour their faces with different figures. They barter among one another sea-otters, sea-bears, clothes made of birds skins and of dried intestines, skins of sea-lions and sea-calves for the coverings of their canoes, wooden masks, darts, thread made of sinews and hair of rein deer.

Their household utensils are square pitchers and large troughs, which they make out of the wood driven ashore by the sea. Their weapons are bows and arrows pointed with flint, and javelins of two yards in length, which they throw from a small board. Instead of hatchets, they use crooked knives of flint or bone. Some iron knives, hatchets, and lances, were observed among them, which they had probably got by plundering the Russians.

According to the reports of the oldest inhabitants of Umnak and Unalashka, they have never been engaged in any war, either amongst themselves or with their neighbours, except with the people of Alashka, the occasion of which was as follows: The son of the

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Feasts are very common among these islanders; and more particularly when the inhabitants of one island are visited by those of the others. The men of the village meet their guests, beating drums, and preceded by the women who sing and dance. At the conclusion of the dance, the hosts invite them to partake of the feasts; after which ceremony, the former return first to their dwellings, place mats in order, and serve up their best provision. The guests next enter, take their places, and, after they are satisfied, the diversions begin. First, The children dance and caper, at the same time making a noise with their small drums, while the owners of the huts of both sexes sing. Next, The men dance almost naked, tripping after one another, and beating drums of a larger size: when these are weary, they are relieved by the women, who dance in their clothes, the men continuing in the mean time to sing and beat their drums. At last the fire is put out which had been kindled for the ceremony. The manner of obtaining fire is by rubbing two pieces of dry wood against each other, or most commonly by striking two flints together, and letting the sparks fall upon some sea otters hair mixed with sulphur. If any sorcerer is present, it is then his turn to play his tricks in the dark; if not, the guests immediately retire to their huts, which are made on that occasion, of their canoes and mats. The natives who have several wives do not withhold them from their guests; but where the owner of the hut has himself but one wife, he then makes the offer of a female servant.

The hunting season is principally from the end of October to the beginning of December; during which time they kill great numbers of young sea bears for their clothing. They pass all December in feastings and diversions similar to those above mentioned: with this difference, however, that the men dance in wooden masks, representing various sea animals, and painted red, green, or black, with coarse coloured earths found upon their islands.

During these festivals, they visit each other from village to village, and from island to island. The feasts concluded, masks and drums are broken to pieces, or deposited in caverns among the rocks, and never afterwards made use of. In spring they go out to kill old sea bears, sea lions, and whales. During summer, and even in winter when it is calm, they row out to sea, and catch cod and other fish. Their hooks are of bone; and for lines they make use of a string made of a long tenacious sea weed, which is sometimes found in those seas near 160 yards in length. Kamtschatka & Kaolin.

Whenever they are wounded in any encounter, or bruised by any accident, they apply a sort of yellow root to the wound, and fast for some time. When their head aches, they open a vein in that part with a stone lancet. When they want to glue the points of their arrows to the shafts, they strike their nose till it bleeds, and use the blood as glue.

Murder is not punished among them; for they have no judge. The following ceremonies are used in the burial of the dead. The bodies of poor people are wrapped up in their own clothes, or in mats; then laid in a grave, and covered over with earth. The bodies of the rich are put, together with their clothes and arms, in a small boat made of the wood driven ashore by the sea: this boat is hung upon poles placed crosswise; and the body is thus left to rot in the open air.

The customs and manners of the inhabitants of the Aleutian isles are nearly similar to those of the inhabitants of the Fox islands. The former indeed are rendered tributary, and entirely subject to Russia; and most of them have a slight acquaintaince with the Russian language, which they have learned from the crews of the different vessels who have landed there.

KAN, or KHAN, the name of an officer in Persia, answering to that of governor in Europe.—There are kans of provinces, countries, and cities, who have different additions to distinguish them.

KANGUROO. See DIDELPHIS, MAMMALIA *Index*.

KANISCA, a very strong town of Lower Hungary, capital of the county of Selawar. It was taken by the Imperialists in 1690. It is seated on the river Drave, in E. Long. 17. 37. N. Lat. 46. 23.

KAN-TCHEOU-FOU, a flourishing town of China, in the province of Kiang-si. Its rivers, port, riches, and population, all contribute to attract strangers. A day's journey from this city is a very rapid current, almost 20 leagues in length, which flows with great impetuosity over a number of scattered rocks that are level with the water. Travellers here are in great danger of being lost, unless they take care to be conducted by one of the pilots of the country; after this passage the river becomes twice as large as the Seine at Rouen; and is continually covered with loaded barks and other vessels under sail.—Near the walls of this city is a very long bridge, composed of 130 boats joined together by strong iron chains. The customhouse is upon this bridge, where a receiver constantly resides to visit all vessels, and examine if they have paid the duties imposed on the commodities with which they are loaded. Two or three moveable boats are so placed, that by their means the bridge can be opened or shut, to give or refuse a passage; and no barks are ever permitted to pass until they have been examined. In the territory belonging to this city, a great number of those valuable trees grow, from which varnish distills. Its district is extensive, and contains 12 cities of the third class.

KAOLIN, the name of an earth which is used as one of the two ingredients in oriental porcelain. Some of this earth was brought from China, and examined by Mr Reaumur. He found that it was perfectly infusible

Kaolin ‖ Kareck.

fusible by fire, and believed that it was a talky earth; but Mr Macquer observes, that it is more probably of an argillaceous nature, from its forming a tenacious paste with the other ingredient called *petuntse*, which has no tenacity. Mr Bomare says, that by analyzing some Chinese kaolin, he found it was a compound earth consisting of clay, to which it owed its tenacity; of calcareous earth, which gave it a meally appearance; of sparkling crystals of mica; and of small gravel, or particles of quartz crystals. He says, that he has found a similar earth upon a stratum of granite, and conjectures that it may be a decomposed granite. This conjecture is the more probable, as kaolins are frequently found in the neighbourhood of granites. See PORCELAIN.

KAOUTCHOUK. See CAOUTCHOUC, CHEMISTRY *Index*.

KARAITES. See CARAITES.

KARAT. See CARACT.

KARECK, an island in the Persian gulf, which was once subject to the Dutch. It was visited by Mr Ives in 1758. He found the south part of the island well cultivated, with agreeable fields of corn, and producing plenty of esculent vegetables. In the middle are very high hills abounding with a variety of shells. Some fragments torn from their sides afforded an opportunity of observing an immense quantity of oysters, scallop, cockle, and other shells. The common tree here is the banian, but without those luxuriant shoots, which in some other places go downward and take root in the ground. The lavender cotton is also found here; and the island abounds with fowl of various kinds. Pearl oysters are also found, but at considerable depths.

This settlement was founded by Baron Kniphausen, who having left the Prussian service on some disgust, entered into that of France, afterwards went to the East Indies, and was appointed resident to the Dutch factory at Bassora. Here he became an object to the avarice and rapacity of the Turkish governors; who having got him accused of capital crimes, he was at last glad to compound with them for 50,000 rupees, the whole sum he was worth, besides giving directions how they might squeeze other 50,000 from his successor in office (who in truth wished him turned out) and the banian who did the business of the Dutch factory, and who had likewise been concerned in underhand practices against him.

The new resident was overjoyed at his accession, but lost all patience when he found himself obliged to pay 30,000 rupees to the governor as a compliment on his entering into a post of such consequence. Nor had the banian much better reason to be satisfied, being obliged to pay down 20,000 rupees to make up the sum which was to satisfy the rapacity of the governor.

Baron Kniphansen sailed from Bassora the very day after he was set at liberty; but having landed on this island, he, in conjunction with an Arabian sheick, formed the plan of the settlement. He then carried a letter from the sheick to the governor and council of Batavia, in which the former proposed to give up the sovereignty of the island. Before setting out for this place, however, the baron took care to despatch a messenger across the desert to Constantinople, acquainting the Dutch ambassador with the treatment he had received, and requesting liberty of the grand visier for the Dutch to settle at Kareck. The messenger returned with a favourable answer before the baron came back from Batavia. The governor of Bassora, then, having attempted in vain to persuade him to return to that place, wrote a letter of complaint to Batavia, accusing the baron in terms of the utmost exaggeration, but without any mention of the 100,000 rupees. The baron, however, having got intelligence of this proceeding, used such diligence that he got back to Batavia in the very ship which carried the letter. Being thus present on the spot to answer the charges brought against him, he acquitted himself so well that his scheme was instantly approved of, and he was sent back with two ships and 50 men to take possession of Kareck, whose inhabitants at that time amounted to no more than 100 poor fishermen.

Kareck ‖ Karnac.

Considerable difficulties now occurred in the establishment of the new colony; for he had but very few materials with him, and the government of Batavia was very slow in sending him the succours they had promised. He was therefore obliged to send for workmen from Persia and Arabia, with whose assistance he built a small compact fort, strong enough to defend itself against any of the country powers, and any ships usually sailing to India, excepting those of our East India Company. Nor was he content with putting himself in a posture of defence, but even commenced hostilities against the Turks; and by detaining two vessels very richly laden, which happened to touch at the island, he at last obliged the governor of Bassora to pay back the 100,000 rupees he had extorted, 30,000 of which he restored to his successor in office at Bassora, and 20,000 to the banian. When Mr Ives visited him, he informs us, that surprising progress had been made during the little time the baron had held the sovereignty of the island, and that he intended to make it a strong and wealthy place; at the same time that he discovered his taste for literature by advancing a sum of money for books and instruments of various kinds, which were afterwards punctually sent. After that time, however, the baron quitted the service of the Dutch; and the island is again in possession of the sheick of Bundaric, to whom it formerly belonged. It is about five miles long and two in breadth; lying nearly in the middle of the Persian gulf, about seven leagues from each side, and about 30 leagues from the mouth of Bassora river, where all ships bound to that port must call for pilots.

KARLE, a Saxon word used in our law, sometimes simply for a man; and sometimes, with an addition, for a servant or clown. Thus the Saxons call a seaman *buscarli*, and a domestic servant *huscarle*. From hence comes the modern word *churl*.

KARMATIANS, a sect of Mohammedans, who occasioned great disorders in the empire of the Arabs. See BAGDAD, N° 49.

KARNAC, the name of a village near Thebes in Upper Egypt, and built on a small part of the site of a single temple, the circumference of which, it is said, it would require half an hour to walk round. The ruins of this temple, which are yet visible, seem to indicate, according to Denon, that it was the largest in the world; and he thinks it probable, that the temple of

Karnac,

Karnac ‖ Kattegatte

Karnac, as well as that of Luxor, was built in the time of Sesostris, when Egypt was in the highest degree of prosperity. The plan of this temple is said to be noble and grand; but Denon supposes that the embellishments were added long after the building of the temple, as they exhibit a more correct and chaste style. The portico alone is composed of 100 columns, the smallest of which are not less than $7\frac{1}{2}$ feet in diameter, and the largest 12.

KASSON, a populous kingdom in the north of Africa, the metropolis of which lies in N. Lat. 14. 33. W. Long. 8. 43. The king of the country was extremely kind to Mr Park, although his son plundered him in a very shocking manner. He says that the number of towns and villages, and the extensive cultivation around them, exceeded every thing he had then seen in Africa. A gross calculation may be formed of the number of inhabitants in this enchanting plain, from considering that the king of Kasson can raise 4000 fighting men by the sound of his war drum. It is remarkable, that although the people possess abundance of corn and cattle, both high and low make no scruple of eating rats, moles, squirrels, snails, and locusts. What is perhaps no less singular, the women of this country are not allowed to eat an egg, although they are used by the men without any scruple in the presence of their wives.

The method of converting the negroes to the religion of Mahomet is worthy of notice. Mr Park assures us that he saw the whole inhabitants of Teesce, a large unwalled town of Kasson, instantly converted. While he resided in that town, an embassy of 10 people belonging to Almami Abdulkader, king of Foota Torra, a country to the west of Bondou, arrived at Teesce; and desiring Tiggity Sego the governor to call an assembly of the inhabitants, publicly made known the determination of their king—"that unless all the people of Kasson would embrace the Mahometan religion, and evince their conversion by saying eleven public prayers, he (the king of Foota Torra) could not possibly stand neuter in the present contest, but would certainly join his arms to those of Kajaaga." Such a message from so potent a prince created great alarm; and the inhabitants, after deliberating for some time, agreed to conform themselves to his will and pleasure, renouncing Paganism and embracing the doctrines of the false prophet.

KASTRIL, or KESTRIL, a species of falcon. See FALCO, ORNITHOLOGY *Index*.

KATTEGATTE, a noted sea, lying between part of Jutland and the coast of Sweden, and towards the latter covered with a great number of isles. It is almost closed at the extremity by the low Danish islands of Sealand and Funen, which had in old times been (with Sweden) the seat of the Suiones. Between the first and the coast of Sweden is the famous Sound, the passage tributary to the Danes by thousands of ships. These islands were of old called *Codonania*, and gave to the Kattegatte the name of *Sinus Codonanus*. Its greatest depth is 35 fathoms. It decreases as it approaches the Sound; which begins with 16 fathoms, and near Copenhagen shallows to even four. The Roman fleet, under the command of Germanicus, sailed, according to Pliny, round Germany, and even doubled the *Cimbricum Promontorium*, and arrived at the islands which fill the bottom of the Kattegatte: either by observation or information, the Romans were acquainted with 23. One they called *Glessaria*, from its amber, a fossil abundant to this day on part of the south side of the Baltic. A Roman knight was employed by Nero's master of the gladiators to collect in these parts that precious production, by which he became perfectly acquainted with this country.

Kattegatte ‖ Keate.

KAUFFBEUREN, a town of Germany, situated on the river Wardach, formerly imperial, but now subject to Bavaria. E. Long. 10. 53. N. Lat. 47. 57.

KAY, QUAY, or *Key*. See KEY.

KAZY, in the East Indies, a Mahometan judge or magistrate; appointed originally by the court of Delhi to administer justice according to their written law; but particularly in matters relative to marriages, the sales of houses, and transgressions of the Koran. He attests or authenticates writings, which under his seal are admitted as the originals in proof.

KEATE, GEORGE, Esq. F.R.S. an eminent English writer, was born in 1730, and educated at Kingston school, after which he went to Geneva, where he resided for some years, and became acquainted with M. Voltaire. When he made the tour of Europe, he became a student in the Inner Temple, was called to the bar, but did not meet with such encouragement as to induce him to persevere. In the year 1760 he published his Ancient and Modern Rome, a poem which was received with considerable applause, and the following year he gave the world A short Account of the Ancient History, present Government and Laws of the Republic of Geneva, 8vo. dedicated to Voltaire, who once intended to translate it into French, but afterwards abandoned his design.

In 1762 he produced an Epistle from Lady Jane Gray to Lord Guildford Dudley; and next year the Alps, a poem, believed to be the best he ever wrote, for truth of description, vigour of fancy, and beauty of versification. In 1764 appeared Netley Abbey, and in 1765, The Temple Student, an Epistle to a Friend, in which he rallies his own want of application to the study of the law, and his consequent want of success in that profession. In 1766 he published a poem to the memory of Mrs Cibber, of whose talents as an actress he entertained a very high opinion. He married in 1769 Miss Hudson, and about the same period he published Ferney, an Epistle to Voltaire. Having praised with energy the beauties of that philosopher's poetical works, he introduces a grand panegyric on the immortal Shakespeare, whom Voltaire used every effort to depreciate, probably from a spirit of envy. This eulogium made the mayor and burgesses of Stratford present our author with a standish mounted with silver, made out of the famous mulberry tree which Shakespeare had planted.

In 1775 appeared his Monument in Arcadia, a dramatic poem; and in 1779 he published his Sketches from Nature, taken and coloured in a Journey to Margate, justly allowed to be an elegant composition. In the year 1787 came out The Distressed Poet, a serio-comic poem, in three cantos, occasioned by a long and vexatious law-suit. His last work was perhaps the most honourable of the whole, both to his head and to his heart. Captain Wilson of the Antelope packet having suffered shipwreck on the Pelew islands, was refused any farther command, and reduced to distress, which induced the humane Keate to publish an account

Keate || Keel.

of these islands for the benefit of that gentleman, which, it is said, brought him about 900 guineas in the space of a year. This work is written with much elegance, although it is probable the amiable part of the manners of the natives of Pelew is somewhat highly coloured.

The life of this poet was spent without any vicissitudes of fortune; he was possessed of a very ample estate, which he never attempted to increase but by prudence in the management of it. He was a man of beneficence and hospitality, and enjoyed the favour of mankind in a very high degree. His health had been gradually declining towards the close of his life. He died in June 1797, leaving one daughter.

KEBBA, an appellation given by the Mahometans to that part of the world where the temple of Mecca is situated, towards which they are obliged to turn themselves when they pray.

KEDAR, in *Ancient Geography*, a district in the desert of the Saracens (so called from *Cedar*, the son of Ishmael), according to Jerome, who in another place says that Kedar was uninhabitable, on the north of Arabia Felix. *Kedareni*, the people; who dwelt in tents like the other Scenites (Psalm cxx.) were rich in cattle (Isaiah lx.), of a swarthy complexion (Canticles i.), and excellent at the bow (Isaiah xxi.).

KEDES, in *Ancient Geography*, a city of refuge and Levitical in the tribe of Naphtali, on the confines of Tyre and Galilee; (Josephus). Jerome calls it a sacerdotal city, situated on a mountain 20 miles from Tyre, near Paneas, and called *Cidissus;* taken by the king of Assyria.—Another *Kedes* in the tribe of Issachar (1 Chron. vi. 72.) which seems to be called *Kishion* (Joshua xix.)

KEDGE, a small anchor, used to keep a ship steady whilst she rides in a harbour or river, particularly at the turn of the tide, when she might otherwise drive over her principal anchor, and entangle the stock or flukes with her slack cable, so as to loosen it from the ground. This is accordingly prevented by a kedge rope that hinders her from approaching it. The kedges are particularly useful in transporting a ship; i. e. removing her from one part of the harbour to another, by means of ropes which are fastened to these anchors. They are generally furnished with an iron stock, which is easily displaced for the convenience of stowing them.

KEDRON, or CEDRON, in *Ancient Geography*, a town which, from the defeat and pursuit of the Syrians (1 Mac. xvi.), appears to have stood on the road which led from the Higher India to Azotus: in this war it was burnt by the Jews.

KEDRON, or *Cedron*, in *Ancient Geography*. St John calls it a brook, but Josephus a deep valley between Jerusalem and Mount Olivet to the east; called also *Kedron* from its blackness. A brook only in winter, or in rainy weather, according to Maundrel.

KEEL, the principal piece of timber in a ship, which is usually first laid on the blocks in building. If we compare the carcass of a ship to the skeleton of the human body, the keel may be considered as the backbone, and the timbers as the ribs. It therefore supports and unites the whole fabric, since the stem and stern post, which are elevated on its ends, are in some measure a continuation of the keel, and serve to connect and enclose the extremities of the sides by transoms; as the keel forms and unites the bottom by timbers. Keel || Keeper.

The keel is generally composed of several thick pieces placed lengthwise, which, after being scarfed together, are bolted, and clenched upon the upper side. When these pieces cannot be procured large enough to afford a sufficient depth to the keel, there is a strong thick piece of timber bolted to the bottom thereof, called the *false keel*, which is also very useful in preserving the lower side of the main keel. In our largest ships of war, the false keel is generally composed of two pieces, which are called the *upper* and the *lower false keels*. See *MIDSHIP-Frame*.

The lowest plank in a ship's bottom, called the *garboard-streak*, has its inner edge let into a groove or channel cut longitudinally on the side of the keel: the depth of this channel is therefore regulated by the thickness of the garboard streak.

KEEL is also a name given to a low flat-bottomed vessel, used in the river Tyne to bring the coals down from Newcastle and the adjacent parts, in order to load the colliers for transportation.

KEEL-Hauling, a punishment inflicted for various offences in the Dutch navy. It is performed by plunging the delinquent repeatedly under the ship's bottom on one side, and hoisting him up on the other, after having passed under the keel. The blocks or pullies by which he is suspended are fastened to the opposite extremities of the main yard, and a weight of lead or iron is hung upon his legs, to sink him to a competent depth. By this apparatus he is drawn close up to the yard-arm, and thence let fall suddenly into the sea, where, passing under the ship's bottom, he is hoisted up on the opposite side of the vessel. As this extraordinary sentence is executed with a serenity of temper peculiar to the Dutch, the culprit is allowed sufficient intervals to recover the sense of pain, of which indeed he is frequently deprived during the operation. In truth, a temporary insensibility to his sufferings ought by no means to be construed into a disrespect of his judges, when we consider that this punishment is supposed to have peculiar propriety in the depth of winter, whilst the flakes of ice are floating on the stream; and that it is continued till the culprit is almost suffocated for want of air, benumbed with the cold of the water, or stunned with the blows his head receives by striking the ship's bottom.

KEELSON, a piece of timber which may be properly defined the interior or counter part of the keel; as it is laid upon the middle of the floor timbers, immediately over the keel, and like it composed of several pieces scarfed together. In order to sit with more security upon the floor timbers and crotches, it is notched about an inch and a half deep, opposite to each of those pieces, and thereby firmly scored down upon them to that depth, where it is secured by spike-nails. The pieces of which it is formed are only half the breadth and thickness of those of the keel.

The keelson serves to bind and unite the floor-timbers to the keel. It is confined to the keel by long bolts, which, being driven from without through several of the timbers, are forclocked or clenched upon rings on the upper side of the keelson.

KEEPER OF THE GREAT SEAL, is a lord by his office,

Keeper
to
Kehl.

office, and styled *lord keeper of the great seal of Great Britain*; he is always one of the privy council. All grants, charters, and commissions of the king under the great seal, pass through the hands of the lord keeper; for without that seal many of those grants, &c. would be of no force, the king being, in the interpretation of the law, a corporation, and therefore passes nothing but by the great seal, which is also said to be the public faith of the kingdom, being in the highest esteem and reputation.

Whenever there is a lord keeper, he is invested with the same place, authority, pre-eminence, jurisdiction, or execution of laws, as the lord chancellor of Great Britain is vested with.

The lord keeper is constituted by the delivery of the great seal, &c.

Keeper of the privy seal, is also a lord by his office, through whose hands all grants, pardons, &c. pass before they come to the great seal; and even some things pass his hands which do not pass the great seal at all. This officer is also one of the privy council, yet was anciently called *clerk of the privy seal*. His duty is to put the seal to no grant, &c. without a proper warrant; nor with warrant where it is against law, or inconvenient, but shall first acquaint the king therewith.

KEEPING, in *Painting*, denotes the representation of objects in the same manner that they appear to the eye at different distances from it; for which the painter should have recourse to the rules of perspective. There are two instances in which the famous Raphael Urbin has transgressed these rules: in one of his cartoons, representing the miraculous draught of fishes, the men in each of the two boats appear of full size, the features of their faces being strongly marked; and the boats are represented so small, and the men so big, that any one of them appears sufficient to sink either of the boats by his own bare weight: and the fowls on the shore are also drawn so big, as to seem very near the eye of the observer, who could not possibly, in that case, distinguish the features of the men in the distant boats. Or, supposing the observer to be in either of the boats, he could not see the eyes or beaks of the fowls on the shore. The other instance occurs in his historical picture of our Saviour's transfiguration on the mount; where he is represented with those who were then with him, almost as large as the rest of his disciples at the foot of the mount, with the father and mother of the boy whom they brought to be cured; and the mother, though on her knees, is more than half as tall as the mount is high. So that the mount appears only of the size of a little hay-rick, with a few people on its top, and a greater number at its bottom on the ground; in which case, a spectator at a little distance could as well distinguish the features of those at the top as those on the ground. But upon any large eminence, deserving the name of a mount, that would be quite impossible.

KEHL, or Keil, a very important fortress of Germany, seated on the banks of the Rhine, built by the French after a design of Marshal Vauban, for the defence of Strasburg, from which it is a mile and a half distant. It was ceded to the empire in 1697, by the treaty of Ryswick. The French retook it in 1703, and it was restored to the empire by the treaty of Rastadt. During the time of the French revolution, this fortress changed masters several times; but after 1801, it was demolished in terms of the treaty of peace. E. Long. 7. 45. N. Lat. 48. 40.

Kehl
to
Keisers-
berg.

KEILL, Dr John, a celebrated astronomer and mathematician, was born at Edinburgh in 1671, and studied in the university of that city. In 1694 he went to Oxford; where, being admitted of Baliol college, he began to read lectures according to the Newtonian system in his private chamber in that college. He is said to have been the first who taught Sir Isaac Newton's principles by the experiments on which they are founded: and this, it seems, he did by an apparatus of instruments of his own providing, by which means he acquired a great reputation in the university. The first specimen he gave the public of his skill in mathematical and philosophical knowledge, was his Examination of Dr Burnet's theory of the earth, with Remarks on Mr Whiston's theory: and these theories being defended by their respective inventors, drew from Mr Keill An Examination of the reflections on the theory of the earth, together with A Defence of the remarks on Mr Whiston's new theory. In 1701, he published his celebrated treatise, entitled, *Introductio ad veram physicam*, which only contains 14 lectures; but in the following editions he added two more. This work has been translated into English, under the title of An Introduction to Natural Philosophy. Afterwards, being made fellow of the Royal Society, he published, in the Philosophical Transactions, a paper of the laws of attraction; and being offended at a passage in the *Acta eruditorum* of Leipsic, warmly vindicated against Mr Leibnitz Sir Isaac Newton's right to the honour of the first invention of his method of fluxions. In 1709 he went to New England as treasurer of the Palatines. About the year 1711, several objections being urged against Sir Isaac Newton's philosophy, in support of Des Cartes's notion of a plenum, Mr Keill published a paper in the Philosophical Transactions on the rarity of matter, and the tenuity of its composition. But while he was engaged in this dispute, Queen Anne was pleased to appoint him her decypherer; and he continued in that place under King George I. till the year 1716. He had also the degree of doctor of physic conferred on him by the university of Oxford in 1713. He died in 1721. He published, besides the works already mentioned, *Introductio ad veram astronomiam*, which was translated into English by Dr Keill himself; and an edition of Commandinus's Euclid, with additions of his own.

Keill, *James*, M. D. an eminent physician, and brother of the former, was born in Scotland about the year 1673; and having travelled abroad, read lectures of anatomy with great applause in the universities of Oxford and Cambridge, by the latter of which he had the degree of doctor of physic conferred upon him. In 1700 he settled at Northampton, where he had considerable practice as a physician; and died there of a cancer in the mouth in 1719. He published, 1. An English translation of Lemery's chemistry. 2. An account of animal secretion, the quantity of blood in the human body, and muscular motion. 3. A treatise on anatomy. 4. Several pieces in the Philosophical Transactions.

KEISERSBERG, a town of Alsace in France,

Keisers-berg || Keith

and in the bailiwick of Haguenau, which has belonged to the French ever since the year 1548. It is seated in a pleasant country, in E. Long. 7. 25. N. Lat. 48. 10.

KEISERSLAUTERN, a town of Germany, in the Lower Palatinate, seated on the river Louter, now subject to Bavaria. E. Long. 7. 51. N. Lat. 49. 22.

KEISERTOUL, a town of Switzerland, in the county of Baden, with a bridge over the Rhine, and a castle. It belongs to the bishop of Constance, and is situated in E. Long. 8. 40. N. Lat. 47. 10.

KEISERWERT, a town of Germany, in the circle of Westphalia, the diocese of Cologne, and the duchy of Berg; subject to the king of Prussia. The fortifications are demolished. It is seated on the Rhine, in E. Long. 6. 49. N. Lat. 51. 16.

KEITH, James-Francis Edward, field-marshal in the Prussian service, was the younger son of William Keith, earl marshal of Scotland; and was born in 1696. He was designed by his friends for the law; but his inclination led to arms, and the first occasion of drawing his sword was at the age of 18 years, when the rebellion broke out in Scotland. Through the instigation of his mother, he joined James's party, was wounded at the battle of Sheriffmuir, and made his escape to France. Here he applied himself to military studies; and going to Madrid, he, by the interest of the duke of Liria, obtained a commission in the Irish brigades, then commanded by the duke of Ormond. He afterwards attended the duke of Liria, when he went ambassador to Muscovy; and being by him recommended to the Czarina, was promoted to the rank of lieutenant-general, and invested with the order of the black eagle. He distinguished himself by his valour and conduct in the Russian service, and had no inconsiderable share in the revolution that raised Elizabeth the daughter of Peter the Great to the throne: he also served in several embassies; but finding the honours of that country but a splendid kind of slavery, he left that court and entered the Prussian service. The king of Prussia made him field-marshal of the Prussian armies, and governor of Berlin; and distinguished him so far by his confidence, as to travel in disguise with him over a great part of Germany, Poland, and Hungary. In business, he made him his chief counsellor; in his diversions, his chief companion. The king was much pleased with an amusement which the marshal invented in imitation of the game of chess. The marshal ordered several thousand small statues of men in armour to be cast by a founder; these he would set opposite to each other, and range them in battalia, in the same manner as if he had been drawing up an army; he would bring out a party from the wings or centre, and show the advantage or disadvantage resulting from the different draughts which he made. In this manner the king and the marshal often amused themselves, and at the same time improved their military knowledge. This brave and experienced general, after many important services in the wars of that illustrious monarch, was killed in the unfortunate affair of Hochkirchen, in the year 1758.

The family of Keith was among the most ancient in Europe. In 1010 the Scots gained a complete victory over the Danes at Camus town in Angus; King Malcolm II. as a reward for the signal bravery of a certain young nobleman who pursued and killed Camus the Danish general, bestowed on him several lands, particularly the barony of Keith in East Lothian, from which his posterity assumed their surname. The king also appointed him hereditary great mareschal of Scotland, which high office continued in his family till the year 1715, when the last earl engaged in the rebellion, and forfeited his estate and honours; and thus ended the family of Mareschal, after serving their country in a distinguished capacity above 700 years.

Keith || Kelly.

KELLINGTON, or Kilkhampton, a town of Cornwall in England, which sends two members to parliament. W. Long. 4. 38. N. Lat. 35. 36.

KELLS, a borough town of Ireland, in the county of Meath, and province of Leinster, 31 miles from Dublin. This place gives title of viscount to the family of Cholmondeley; and near it is Headfort, the magnificent seat of Lord Bective. This town is pleasantly situated on the river Blackwater, and has four fairs. It was anciently called *Kenanus*, and afterwards *Kenlis*. In former ages it was one of the most famous cities in the kingdom; and on the arrival of the English was walled and fortified with towers. In 1178 a castle was erected where the market place now is; and opposite to the castle was a cross of an entire stone, ornamented with bas-relief figures and many curious inscriptions in the ancient Irish character. Within a small distance was the church of St Senan; and on the south of the churchyard is a round tower which measures 99 feet from the ground, the roof ending in a point; and near the top were four windows opposite to the cardinal points. There was a celebrated monastery founded here in 550 for regular canons, and dedicated to the Virgin Mary. It owed its origin to St Columba, to whom the site of the abbey was granted by Dermod Maccarval, or Dermod the son of Kervail king of Ireland. An episcopal see was afterwards erected here, which in the 13th century was united to that of Meath. A priory or hospital was also erected by Walter de Lacie, lord of Meath, in the reign of Richard I. for cross-bearers or crouched friars following the order of St Augustin. There was likewise a perpetual chantry of three priests or chaplains in the parish church of St Columba in Kells to celebrate mass daily; one in the Rood chapel, another in St Mary's chapel, and a third in the chapel of St Catherine the virgin.

Kells is also the name of a village in the county of Kilkenny, 64 miles from Dublin, situated on Kings river; and was noted for a priory of Augustines, built and richly endowed by Geoffroy Fitzroberts, who came into this kingdom with Strongbow. The prior of this place had the title of *lord spiritual*, and as such sat in the house of peers before the Reformation; the ruins only of this abbey now remain: a synod was held in it anno 1152, when John Paparo, legate from Rome, made one of the number of bishops that were convened there at that time to settle the affairs of the church.

There is a third place of the above name, situated in the county of Antrim and province of Ulster, 89 miles from Dublin.

KELLY, Hugh, an author of considerable repute,

Kelly. pute, was born on the banks of Killarney lake in Ireland in 1739. His father, a gentleman of good family, having reduced his fortune by a series of unforeseen misfortunes, was obliged to repair to Dublin that he might endeavour to support himself by his personal industry. A tolerable school education was all he could afford to his son; who was bound an apprentice to a staymaker, and served the whole of his time with diligence and fidelity. At the expiration of his indentures, he set out for London to procure a livelihood by his business; where he encountered all the difficulties a person poor and without friends could be subject to on his first arrival in town. Happening, however, to become acquainted with an attorney, he was employed by him in copying and transcribing; an occupation which he prosecuted with so much assiduity, that he is said to have earned about three guineas a-week, an income which, compared to his former gains, might be deemed affluent. Tired, however, of this drudgery, he soon after, about 1762, commenced author, and was intrusted with the management of the Lady's Museum, the Court Magazine, the Public Ledger, the Royal Chronicle, Owen's Weekly Post, and some other periodical publications, in which he wrote many original essays and pieces of poetry, which extended his reputation, and procured the means of subsistence for himself, his wife to whom he was then lately married, and a growing family. For several years after this period, he continued writing upon a variety of subjects, as the accidents of the times chanced to call for the assistance of his pen; and as during this period politics were the chief objects of public attention, he employed himself in composing many pamphlets on the important questions then agitated, the greater part of which are now buried in oblivion. Among these, however, was a Vindication of Mr Pitt's Administration, which Lord Chesterfield makes honourable mention of in the second volume of his letters. In 1767, the Babler appeared in two pocket volumes, which had at first been inserted in Owen's Weekly Chronicle in single papers; as did the Memoirs of a Magdalene, under the title of *Louisa Mildmay*. About 1767 he was tempted by the success of Churchill's Rosciad to write some strictures on the performers of both theatres, in two pamphlets, entitled *Thespis*, which gave great offence to some of the principal persons at each house. The talents for satire, which he displayed in this work, recommended him to the notice of Mr Garrick, who in the next year caused his first play of False Delicacy to be acted at Drury Lane. It was received with great applause; and from this time he continued to write for the stage with profit and success, until the last period of his life. As his reputation increased, he began to turn his thonghts to some mode of supporting his family less precarious than by writing, and for that purpose entered himself a member of the Middle Temple. After the regular steps had been taken, he was called to the bar in 1774, and his proficiency in the study of the law afforded promising hopes that he might make a distinguished figure in that profession. His sedentary course of life had, however, by this time injured his health, and subjected him to much affliction. Early in 1777 an abscess formed in his side, which after a few days illness put a period to his life. He was the author of six plays besides that above mentioned. Kelly Kelso.

KELP, a term which is used in Britain to signify the saline substance obtained by burning sea-weed, which is chiefly employed in the manufacture of green-glass. Different species of sea-weed, belonging to the genus *fucus*, and order *algæ*, are cultivated for this purpose. These plants are thrown on the rocks and shores in great abundance, and in the summer months are raked together and dried as hay in the sun and wind, and afterward burnt to the ashes called *kelp*. The process of making it is thus: The rocks, which are dry at low water, are the beds of great quantities of sea-weed; which is cut, carried to the beach, and dried: a hollow is dug in the ground three or four feet wide; round its margin are laid a row of stones, on which the sea-weed is placed, and set on fire within, and quantities of this fuel being continually heaped upon the circle, there is in the centre a perpetual flame, from which a liquid like melted metal drops into the hollow beneath; when it is full, as it commonly is ere the close of day, all heterogeneous matter being removed, the kelp is wrought with iron rakes, and brought to an uniform consistence in a state of fusion. When cool, it consolidates into a heavy dark-coloured alkaline substance, which undergoes in the glass-houses a second vitrification, and when pure assumes a perfect transparency. See SODA, CHEMISTRY *Index*.

KELSO, a town of Roxburghshire in Scotland, pleasantly situated on the river Tweed, in W. Long. 1. 20. N. Lat. 55. 38. Of this town Mr Pennant gives the following description. It is built much after the manner of a Flemish town, with a square and townhouse. The population in 1811 amounted to 3630. Kelso has a very considerable market, and great quantities of corn are sold here weekly by sample. The abbey of Tyronensians was a vast pile, and, to judge by the remains, of venerable magnificence. The walls are ornamented with false round arches, intersectiug each other. Such intersections form a true Gothic arch: and may as probably have given rise to that mode as the arched shades of avenues. The steeple of the church is a vast tower. This house was founded by David I. when earl of Cumberland. He first placed it at Selkirk, then removed it to Roxburgh, and finally, when he came to the crown, fixed it here in 1128. Its revenues were in money about 2000l. Scots a-year. The abbot was allowed to wear a mitre and pontifical robes; to be exempt from episcopal jurisdiction, and permitted to be present at all general councils. The environs of Kelso are very fine: the lands consist of gentle risings, enclosed with hedges, and extremely fertile. They have much reason to boast of their prospects. From the Chalkheugh is a fine view of the forks of the rivers, Roxburgh hill, Sir John Douglas's neat seat, and at a distance Fleurus; and from Pinnacle hill is seen a vast extent of country, highly cultivated, watered with long reaches of the Tweed, well wooded on each margin. These borderers ventured on cultivation much earlier than those on the west and east, and have made great progress in every species of rural economy. Turnips and cabbages for the use of cattle cover many large tracts; and potatoes appear in vast fields. Much wheat is raised in

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Kelso ‖ Ken.

the neighbourhood, part of which is sent up the frith of Forth, and part into England. The fleeces here are very fine. The wool is sent into Yorkshire, to Linlithgow, or into Aberdeenshire, for the stocking manufacture; and some is woven here into a cloth called *plains*, and sold into England to be dressed. Here is also a considerable manufacture of white leather, chiefly to supply the capital of Scotland. A fine stone bridge of six arches over the Tweed, near its confluence with the Teviot, was in 1798 carried away by a flood. It has since been rebuilt.

KEMPIS, Thomas, a pious and learned regular canon, was born at the village of Kemp, in the diocese of Cologne, in 1380; and took his name from that village. He performed his studies at Deventer, in the community of poor scholars established by Gerard Groot; and there made great progress in the sciences. In 1399 he entered the monastery of the regular canons of Mount St Agnes, near Swol, of which his brother was prior. Thomas à Kempis there distinguished himself by his eminent piety, his respect for his superiors, his charity to his brother canons, and his continual application to labour and prayer. He died in 1471, aged 90. The best editions of his works, which consist of sermons, spiritual treatises, and lives of holy men, are those of Paris in 1649, and of Antwerp in 1607. The famous and well-known book *De Imitatione Christi*, which has been translated into almost all the languages of the world, though it has almost always been numbered among the works of Thomas à Kempis, is also found printed under the name of *Gerson;* and on the credit of some MSS. has been since ascribed to the abbot Gerson of the order of St Benedict. This has occasioned a violent dispute between the canons of St Augustine, and the Benedictines: but while devout Christians find spiritual comfort in the work, the name of the writer is of small importance.

KEMPTEN, a town of Germany, in Lower Suabia, and in Algow, and also in the territory of the abbot of Kempten, who was a prince of the empire. It belongs now to Bavaria. The inhabitants are Protestants, and amount to 5300. It is seated on the river Iller. E. Long. 10. 33. N. Lat. 47. 47.

Kempten, a territory in the circle of Suabia, in Germany, between the bishopric of Augsburg and the barony of Walburg. It is about 17 miles long and broad; and has no considerable place but the towns of Kempten and Kauffbeuren, which are imperial.

KEN, Thomas, an eminent English bishop in the 17th century, was bred at Winchester school, whence he went to Oxford; and in 1669 was made a prebend of Winchester. In 1675, the year of the Jubilee, he travelled to Rome; and used to say, He had reason to give God thanks for his travels, having returned more confirmed of the purity of the reformed religion than he was before. He was appointed by King Charles II. to attend the lord Dartmouth at the demolishing of Tangier; and at his return was made chaplain to his majesty, as he was some time after to the princess of Orange, then residing in Holland. In 1685 he was consecrated bishop of Bath and Wells. The month following he attended King Charles II. at his death; and gave close attendance at the royal bed for three whole days and nights, watching proper intervals to suggest pious and proper thoughts on that serious occasion. In the following reign he zealously opposed the progress of Popery; and in June 1688, he, with five other bishops, and the archbishop of Canterbury, was committed prisoner to the Tower of London, for subscribing a petition to his majesty against the declaration of indulgence. Upon the revolution, however, he refused to take the oaths to King William and Queen Mary, on which account he was deprived of his bishopric. Her majesty Queen Anne bestowed on him a yearly pension of 200l. to his death in 1710. He published several pious books. His charity was so great, that when he was bishop of Bath and Wells, having received a fine of 4000l. he gave a great part of it to the French Protestants.

Ken. Kendal.

KENDAL, a town of Westmoreland, seated in a valley among hills, on the west side of the river Can or Ken, over which there are two stone bridges, and one of wood which leads to the castle now in ruins. It is a large handsome place; and has two long streets, which cross each other. The inhabitants have driven a trade with the cotton and woollen manufactory throughout England ever since the reign of Edw. III. and particular laws were enacted for regulating Kendal cloths as early as Richard II. and Henry IV. It is of note also for the manufactory of cottons, druggets, serges, hats, worsted and yarn stockings, &c. Queen Elizabeth incorporated it with aldermen and burgesses; and King James I. with a mayor, recorder, town-clerk, 12 aldermen, 24 burgesses or common-council-men, and 2 attorneys. There are seven companies here who have each their hall, viz. mercers, sheermen, cordwainers, glovers, tanners, taylors, and pewterers. Here is an elegant town-hall; and there is a court of conscience, which was granted by George III. for debts under 40s. It has a large beautiful church, which stands on the other side of the brook called *Blindbeck*, out of the liberty of the town; a large, neat, and handsome building, 180 feet long, and 99 broad, with five aisles, each parted by a row of eight pillars, and a strong square steeple. Near it is Abbot's hall, the residence of the abbot when this church belonged to an abbey dissolved by Henry VIII. In 1755, a new chapel was erected in the middle of the town, besides which there are twelve chapels of ease belonging to it. The Dissenters and Quakers have meeting-houses. The free grammar-school is well endowed; and also a charity school for 10 boys and 16 girls, who are all clothed as well as taught. Eastward of the town, on the opposite side of the river, on a hill, from whence is a fine prospect, stand the ruins of a castle, wherein was born Catherine Parr, the sixth wife of Henry VIII. By means of inland navigation, it has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles in the counties of Lincoln, Nottingham, York, Lancaster, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. Here are kept the sessions of the peace for this part of the county called the barony of Kendal; and there is a very great market on Saturday, with all kinds of provisions and woollen yarn, which the girls bring hither

in

Kendal, Kennel.

in large bundles. It has fairs on May 6, and Nov. 8. The river here, which runs half through the town in a stony channel, abounds with trout and salmon; and on the banks of it live the dyers and tanners. In 1811 the population amounted to 7505. Kendal is 256 miles N. N. W. from London, and in W. Long. 2. 49. N. Lat. 54. 21.

KENNEL, a term used indifferently for a puddle, a water course in the streets, a house for a pack of hounds, and the pack or cry of hounds themselves.

Mr Beckford, in his Essay on Hunting, is very particular in describing a kennel for hounds; and a kennel he thinks indispensably necessary for keeping those animals in proper health and order. "It is true (says he) hounds may be kept in barns and stables; but those who keep them in such places can best inform you whether their hounds are capable of answering the purposes for which they are designed. The sense of smelling is so exquisite in a hound, that I cannot but suppose that every stench is hurtful to it. Cleanliness is not only absolutely necessary to the nose of the hound, but also to the preservation of his health. Dogs are naturally cleanly; and seldom, if they can help it, dung where they lie. Air and fresh straw are necessary to keep them healthy. They are subject to the mange; a disorder to which poverty and nastiness will very much contribute. The kennel should be situated on an eminence; its front ought to be to the east, and the courts round it ought to be wide and airy to admit the sunbeams at any time of the day. It is proper that it should be neat without and clean within; and it is proper to be near the master's house, for obvious reasons. It ought to be made large enough at first, as any addition to it afterwards may spoil it in appearance at least." Two kennels, however, in our author's opinion, are absolutely necessary to the wellbeing of hounds: "When there is but one (says he), it is seldom sweet; and when cleaned out, the hounds, particularly in winter, suffer both while it is cleaning, and afterwards as long as it remains wet."

When the feeder first comes to the kennel in a morning, he should let out the hounds into the outer court; and in bad weather, should open the door of the hunting kennel (that in which the hounds designed to hunt next day are kept), lest want of rest should incline them to go into it. The lodging room should then be cleaned out, the doors and windows of it opened, the litter shaken up, and the kennel made sweet and clean before the hounds return to it again.—The floor of each lodging room should be bricked, and sloped on both sides to run to the centre, with a gutter left to carry off the water, that when they are washed they may soon be dry. If water should remain through any fault in the floor, it must be carefully mopped up; for damps are always very prejudicial.

The kennel ought to have three doors; two in the front and one in the back; the last to have a lattice window in it with a wooden shutter, which is constantly to be kept closed when the hounds are in, except in summer, when it should be left open all the day.

At the back of Mr Beckford's kennel is a house thatched and furzed up on the sides, big enough to contain at least a load of straw. Here should be a pit ready to receive the dung, and a gallows for the flesh. The gallows should have a thatched roof, and a circular board at the posts to prevent vermin from climbing up. He advises to enclose a piece of ground adjoining to the kennel for such dog horses as may be brought alive; it being sometimes dangerous to turn them out where other horses go, on account of the disorders with which they may be infected. In some kennels a stove is made use of; but where the feeder is a good one, Mr Beckford thinks that a mop properly used will render the stove unnecessary. "I have a little hay rick (says he) in the grass yard, which I think is of use to keep the hounds clean and fine in their coats. You will frequently find them rubbing themselves against it. The shade of it is also useful to them in summer. If ticks at any time be troublesome in your kennel, let the walls of it be well washed; if that should not destroy them, the walls must then be white washed."

Kennel, Kennet.

Besides the directions already given concerning the situation of the kennel, our author recommends it to have a stream of water in its neighbourhood, or even running through it if possible. There should also be moveable stages on wheels for the hounds to lie on. The soil ought at all events to be dry.

To KENNEL, a term applied by fox-hunters to a fox when he lies in his hole.

KENNET, Dr WHITE, a learned English writer and bishop of Peterborough, in the 18th century, bred at St Edmund hall, Oxford; where he soon distinguished himself by his vigorous application to his studies, and by his translations of several books into English, and other pieces which he published. In 1695 our author published his Parochial Antiquities. A sermon preached by him on the 30th of January 1703 at Aldgate exposed him to great clamour. It was printed under the title of *A compassionate inquiry into the causes of the civil war*. In 1706, he published his Case of Impropriations, and two other tracts on the same subject. In 1706, he published the third volume of The Complete History of England (the two former volumes compiled by Mr Hughes). In 1709, he published A Vindication of the Church and Clergy of England from some late reproaches rudely and unjustly cast upon them: and A true Answer to Dr Sacheverel's Sermon. When the great point in Dr Sacheverel's trial, the change of the ministry, was gained, and very strange addresses were made upon it, there was to be an artful address from the bishop and clergy of London, and they who would not subscribe it were to be represented as enemies to the queen and the ministry. Dr Kennet fell under this imputation. He was exposed to great odium as a low churchman, on account of his conduct and writings. When he was dean of Peterborough, a very uncommon method was taken to expose him by Dr Walton, rector of the church of Whitechapel: for in the altar-piece of that church, which was intended for a representation of Christ and his 12 apostles eating the passover and last supper, Judas the traitor was drawn sitting in an elbow-chair, dressed in a black garment, with a great deal of the air of Dr Kennet's face. It was generally said that the original sketch was for a bishop under Dr Walton's displeasure; but the painter being apprehensive of an action of *Scandalum Magnatum*, leave was given to drop the bishop, and make the dean. This giving general offence, upon the complaint of others (for Dr Kennet never saw it, or seemed to regard it), the bishop

of

Kennet, Kennicott.

of London ordered the picture to be taken down. In 1713, he presented the Society for Propagating the Gospel with a great number of books suitable to their design; published his *Bibliothecæ Americanæ Primordia*, and founded an antiquarian and historical library at Peterborough. In 1715, he published a sermon entitled, *The Witchcraft of the present Rebellion*, and afterwards several other pieces. In 1717 he was engaged in a dispute with Dr William Nicholson, bishop of Carlisle, relating to some alterations in the bishop of Bangor's famous sermon; and disliked the proceedings of the convocation against that bishop. Upon the death of Dr Cumberland bishop of Peterborough, he was promoted to that see, to which he was consecrated in 1718. He sat in it more than ten years, and died in 1728. He was an excellent philologist, a good preacher, whether in English or Latin, and well versed in the histories and antiquities of our nation.

KENNET, *Basil*, a learned English writer, and brother to the preceding, was educated in Corpus Christi college, in the university of Oxford, where he became fellow. In 1706, he went over chaplain to the English factory at Leghorn; where he met with great opposition from the Papists, and was in danger from the inquisition. He died in the year 1714. He published Lives of the Greek poets; the Roman Antiquities; a volume of Sermons preached at Leghorn: A translation into English of Puffendorf's Treatise of the Law of Nature and Nations. He was a man of most exemplary integrity, generosity, piety, and modesty.

KENNICOTT, DR BENJAMIN, well known in the learned world for his elaborate edition of the Hebrew Bible and other valuable publications, was born at Totness in Devonshire in the year 1718. His father was the parish clerk of Totness, and once master of a charity school in that town. At an early age young Kennicott succeeded to the same employ in the school, being recommended to it by his remarkable sobriety and premature knowledge. It was in that situation he wrote the verses on the recovery of the honourable Mrs Courtney from a dangerous illness, which recommended him to her notice, and that of many neighbouring gentlemen. They, with laudable generosity, opened a subscription to send him to Oxford. In judging of this performance, they may be supposed to have considered not so much its intrinsic merit, as the circumstances under which it was produced. For though it might claim just praise as the fruit of youthful industry struggling with obscurity and indigence, as a poem it never rises above mediocrity, and generally sinks below it. But in whatever light these verses were considered, the publication of them was soon followed by such contributions as procured for the author the advantages of an academical education. In the year 1744 he entered at Wadham college; and it was not long before he distinguished himself in that particular branch of study in which he afterwards became so eminent. His two dissertations on the Tree of Life, and The Oblations of Cain and Abel, came to a second edition so early as the year 1747, and procured him the singular honour of bachelor's degree conferred on him *gratis* by the university a year before the statutable time. The dissertations were gratefully dedicated to those benefactors whose liberality had opened his way to the university, or whose kindness had made it a scene not only of manly labour, but of honourable friendship. With such merit, and such support, he was a successful candidate for a fellowship of Exeter college, and soon after his admission into that society, he distinguished himself by the publication of several occasional sermons. In the year 1753 he laid the foundation of that stupendous monument of learned industry, at which the wise and the good will gaze with admiration, when prejudice, and envy, and ingratitude shall be dumb. This he did by publishing his first dissertation, On the State of the printed Hebrew text, in which he proposed to overthrow the then prevailing notion of its absolute integrity. The first blow indeed, had been struck long before, by Capellus, in his *Critica Sacra*, published after his death by his son, in 1650—a blow which Buxtorf, with all his abilities and dialectical skill, was unable to ward off. But Capellus having no opportunity of consulting MSS. though his arguments were supported by the authority of the Samaritan Pentateuch, of parallel passages, and of the ancient versions, could never absolutely prove his point. Indeed the general opinion was that the Hebrew MSS. contained none, or at least very few and trifling variations from the printed text: and with respect to the Samaritan Pentateuch very different opinions were entertained. Those who held the Hebrew verity, of course condemned the Samaritan as corrupt in every place where it deviated from the Hebrew; and those who believed the Hebrew to be incorrect, did not think the Samaritan of sufficient authority to correct it. Besides the Samaritan itself appeared to very great advantage; for no Samaritan MSS. were then known, and the Pentateuch itself was condemned for those errors which ought rather to have been ascribed to the incorrectness of the editions. In this dissertation, therefore, Dr Kennicott proved that there were many Hebrew MSS. extant, which, though they had hitherto been generally supposed to agree with each other, and with the Hebrew text, yet contained many and important various readings; and that from those various readings considerable authority was derived in support of the ancient versions. He announced the existence of six Samaritan MSS. in Oxford only, by which many errors in the printed Samaritan might be removed; and he attempted to prove, that even from the Samaritan, as it was already printed, many passages in the Hebrew might undoubtedly be corrected. This work, as it was reasonable to expect, was examined with great severity both at home and abroad. In some foreign universities the belief of the Hebrew verity, on its being attacked by Capellus, had been insisted on as an article of faith.—*Ista Capelli sententia adeo non approbata fuit fidei sociis, ut potius Helvetii theologi, et speciatim Genevenses, anno* 1678, *peculiari canone caverint, ne quis in ditione suo minister ecclesiæ recipiatur, nisi fateatur publicè, textum Hebræum, ut hodie est in exemplaribus Masoreticis, quoad consonantes et vocales, divinum et authenticum esse*, (Wolfii Biblioth. Heb. tom. ii. p. 27.). And at home this doctrine of the corrupt state of the Hebrew text was opposed by Comings and Bate, two Hutchinsonians, with as much violence as if the whole truth of revelation were at stake.

Kennicott.

The next three or four years of Dr Kennicott's life were principally spent in searching out and examining

Hebrew

Kennicott. Hebrew manuscripts, though he found leisure not only to preach, but to publish several occasional sermons. About this time Dr Kennicott became one of the king's preachers at Whitehall; and in the year 1759 we find him vicar of Culham in Oxfordshire. In January 1760 he published his second dissertation on the state of the Hebrew Text: in which, after vindicating the authority and antiquity of the Samaritan Pentateuch, he disarmed the advocates for the Hebrew verity of one of their most specious arguments. They had observed that the Chaldee Paraphrase having been made from Hebrew MSS. near the time of Christ, its general coincidence with the present Hebrew Text must evince the agreement of this last with the MSS. from which the paraphrase was taken. Dr Kennicott demonstrated the fallacy of this reasoning, by showing that the Chaldee Paraphrase had been frequently corrupted, in order to reconcile it with the printed text; and thus the weapons of his antagonists were successfully turned upon themselves. He appealed also to the writings of the Jews themselves on the subject of the Hebrew Text, and gave a compendious history of it from the close of the Hebrew canon down to the invention of printing, together with a description of 103 Hebrew manuscripts which he had discovered in England, and an account of many others preserved in various parts of Europe. A collation of the Hebrew manuscripts was now loudly called for by the most learned and enlightened of the friends of biblical criticism; and in this same year (1760) Dr Kennicott emitted his proposals for collating all the Hebrew manuscripts prior to the invention of printing, that could be found in Great Britain and Ireland, and for procuring at the same time as many collations of foreign manuscripts of note, as the time and money he should receive would permit. His first subscribers were the learned and pious Archbishop Secker, and the delegates of the Oxford press, who, with that liberality which has generally marked their character, gave him an annual subscription of 40l. In the first year the money received was about 500 guineas, in the next it arose to 900, at which sum it continued stationary till the tenth year, when it amounted to 1000. During the progress of this work, the industry of our author was rewarded by a canonry of Christ Church. He was also presented, though we know not exactly when, to the valuable living of Mynhenyote, in Cornwall, on the nomination of the chapter of Exeter. In 1776 the first volume was published, and in 1780 the whole was completed. If now we consider that above 600 MSS. were collated, and that the whole work occupied 20 years of Dr Kennicott's life, it must be owned that sacred criticism is more indebted to him than to any scholar of any age. Within two years of his death, he resigned his living in Cornwall, from conscientious motives, on account of his not having a prospect of ever again being able to visit his parish. Although many good and conscientious men may justly think, in this case, that his professional labours carried on elsewhere might properly have entitled him to retain this preferment, and may apply this reasoning in other cases; yet a conduct so signally disinterested deserves certainly to be admired and celebrated. Dr Kennicott died at Oxford, after a lingering illness, September 18. 1783; and left a widow, who was sister to the late Edward Chamberlayne, Esq. of the treasury. At the time of his death he was employed in printing Remarks on Select Passages in the Old Testament; which were afterwards published, the volume having been completed from his papers. Kennicott || Kensington.

KENO. See KINO.

KENRICK, WILLIAM, an author of considerable abilities, was the son of a citizen of London, and brought up, it is said, to a mechanical employment. This, however, he seems early to have abandoned; and to have devoted his talents to the cultivation of letters, by which he supported himself during the rest of a life which might be said to have passed in a state of warfare, as he was seldom without an enemy to attack or to defend himself from. He was for some time student at Leyden, where he acquired the title of J. U. D. Not long after his return to England, he figured away as a poet in Epistles Philosophical and Moral, 1759, addressed to Lorenzo; an avowed defence of infidelity, written whilst under confinement for debt, and with a declaration that he was "much less ambitious of the character of a poet than of a philosopher." From this period he became a writer by profession; and the Proteus shapes under which he appeared, it would be a fruitless attempt to trace. He was for a considerable time a writer in the Monthly Review; but quarrelling with his principal, began a new review of his own. When our great lexicographer's edition of Shakespeare first appeared in 1765, it was followed in a fortnight by a pamphlet, entitled, "A Review of Dr Johnson's new Edition of Shakespeare, in which the ignorance or inattention of that editor is exposed, and the poet defended from the persecution of his commentators, 1765." This pamphlet was followed by an examination of it, and that by a Defence in 1766; in which year he produced his pleasant comedy of Falstaff's Wedding, at first intended to have been given to the public as an original play of Shakespeare retrieved from obscurity, and is, it must be acknowledged, a happy imitation of our great dramatic bard. With the celebrated English Roscius Dr Kenrick was at one time on terms of the strictest intimacy: but took occasion to quarrel with him in print, in a mode too unmanly to be mentioned. In politics also he made himself not a little conspicuous; particularly in the dispute between his friends Wilkes and Horne. He was the original editor of The Morning Chronicle; whence being ousted for neglect, he set up a new one in opposition. He translated in a very able manner the Emilius and the Eloisa of Rousseau; the Elements of the History of England, by Milot (to injure, if possible, a translation of the same work by Mrs Brooke); and produced several dramatic performances, together with an infinite variety of publications both original and translated. To him also the public are indebted for the collection (imperfect as it is) of the Poetical works of Robert Lloyd, M. A. 1774, 2 vols 8vo. Dr Kenrick, died June 9. 1777.

KENSINGTON, a village of Middlesex, on the western road from London, near two miles from Hyde-Park Corner. It is extremely populous; and besides the palace, now neglected, contains many genteel houses and several boarding schools. The palace, which was the seat of the lord chancellor Finch, afterwards earl of Nottingham, was purchased by King William; who greatly improved it, and caused a royal road

Kensington, Kent.

road to be made to it, through St James's and Hyde Parks, with lamp posts erected at equal distances on each side. Queen Mary enlarged the gardens. Her sister Queen Anne improved what Mary had begun; and was so pleased with the place, that she frequently supped during the summer in the greenhouse, which is a very beautiful one: but Queen Caroline completed the design by extending the gardens from the great road in Kensington to Acton; by bringing what is called the Serpentine river into them; and by taking in some acres out of Hyde Park, on which she caused a mount to be erected, with a chair on it that could be easily turned round for shelter from the wind, since decayed. This mount is planted about with evergreens, and commands a fine view over the noble gardens, and the country south and west. They were originally designed by *Kent*, and were afterwards much improved by *Brown;* and though they contain no striking beauties, which their flat situation will not admit, yet they have many pleasing parts, and afford much delight to the inhabitants of London, particularly to those whose professions will not allow of frequent excursions to more distant places. These gardens, which are three miles and a half in compass, are kept in great order. The palace indeed has none of that grandeur which ought to appear in the residence of a British monarch; but the royal apartments are noble, and some of the pictures good. It was at this place King William, Prince George of Denmark, Queen Anne, and King George II. died. The old church was pulled down in 1696, and a much better one built in its room. Part of this village, from the palace gate to the Bell, is in the parish of St Margaret's, Westminster. The population of Kensington in 1811 was estimated at 10,886.

KENT, one of the counties of England, situated at the south-east corner of the island, and from thence enjoying many advantages. The capacious æstuary of the Thames washes its northern parts, as the sea does the south-east; whence some with no great impropriety have styled it a *peninsula*. In point of extent, this is the fifth shire in South Britain, little less in its dimensions than the province of Holland; larger in size than the duchy of Juliers in Germany; and almost exactly equal to that of Modena in Italy. Kent is, with great appearance of truth, supposed to be so styled from the ancient British word *kant*, signifying a *corner*, or, when applied to a country, a *head-land*. It is certain, that the Romans bestowed the name of *Cantium* on the province, and on its most conspicuous promontory the North Foreland; and from the district they inhabited, the people were called *Cantii;* which has prevailed even to our times, when *Kent*, and the *the men of Kent*, are the common appellatives. It is however probable, that these Cantii were not the original inhabitants, but a later colony from the opposite continent, established here, like the Belgæ, not long before the Roman invasion. At the time of Cæsar's coming, this spacious and fertile region was divided into four principalities, or, as they are, according to the manners of those days, commonly called, *kingdoms*. It was his observation of these people, that they were particularly distinguished by their civility and politeness; a character which their descendants have preserved. When that wise people became masters of the southern parts of the island, this province received the most conspicuous marks of their attention, as appears from the stations which they so prudently established, while their government flourished in its full vigour. The care they took of the ports on the sea coast as soon as it came to be in danger, and the several fortresses which they erected for the defence of their subjects against the sudden attempts of barbarous invaders, are evidences of the same kind. These forts, so prudently disposed, and so well secured, were under the direction of a particular great officer, called *Littoris Saxonici Comes*, i. e. the count of the Saxon shore; which office seems to have been preserved by the British monarchs who governed here, after the Romans quitted the isle. The Saxon kings of Kent discharged this trust in their legal capacity, from the middle of the fifth to the beginning of the ninth century. Under the northern princes, this post was again revived, though with a change of title, in the *Lord Warden of the Cinque Ports*. Indeed, under all governments, the people of Kent have been especially considered; as appears from their claim to the post of honour in our land armies, and the privileges granted to their havens, in consideration of their undertaking the defence of our channel.

Kent.

Campbell's Political Survey.

As to the climate of this county, it varies according to the situation of places. In the low flat lands, and especially in the marshes, the air is heavy, moist, and unhealthy; and yet not to such a degree as it has been sometimes represented; for, with a little care and caution, strangers, as well as natives, quickly reconcile their constitutions to the temperature even of these parts, and live in them without much inconveniency or apparent danger. But, in reference to the rest of the county, the air is as thin, pure, and wholesome, as in any part of Britain. There is no region more happily or more beautifully diversified in regard to soil, so that every kind thereof is, somewhere or other, to be met within its bounds; and in no shire are any of these soils more fertile than they are in this. The Weald yields variety of fine timber, particularly of chesnut; the middle part has very rich arable land, annually bearing every species of grain in immense plenty, and these excellent in their several sorts. There are also many beautiful orchards, which produce a variety of fine fruits, and more especially apples and cherries, which were introduced here from Flanders by one Richard Harris, who was the king's fruiterer, in the reign of Henry VIII. The flat country is renowned for its meadows; and Rumney marsh has hardly its equal. We may from this concise description very easily collect, that the natural products of Kent are numerous, and of great value. In the bowels of the earth they find, in several places, a rough hard serviceable stone for paving, which turns to some advantage; but not so much as their exquisite fullers earth, rich marl, and fine chalk, which are there in abundance. If we except iron ore, indeed they have no mines; but there are prodigious heaps of copperas stones thrown on the coast. The isle of Sheppey, and all the adjacent shore as far as Reculver, is justly famous for its wheat. Thanet is in no less credit for its barley, or rather was so; for now it produces, through the painful industry and skilful husbandry of its inhabitants, copious crops of good wheat as well as barley.

Kent. ley. Horses, black cattle, and sheep, they have in great numbers, and remarkable in point of size; and hop grounds in all parts of the county, which turn to very considerable account. To which we may add weld, or as some call it *dyers weed*, which is a very profitable commodity, and of which there grows much in the neighbourhood of Canterbury; also madder, which is, or has been, occasionally cultivated. The rivers and sea coasts abound with fish of different kinds. The excellency of its oysters on the eastern shores is celebrated by the Roman poets. Those of Feversham and Milton are not only in great esteem at the London market, but are likewise sent in great quantities to Holland.

The many rich commodities produced in this county, is the reason why most of our writers have represented it as in a manner void of manufactures; which, however, as appears upon a strict and impartial examination, is very far from being the case. Of iron works there were anciently many; and there are still some, where kettles, bombs, bullets, cannon, and such like, are made. At Deptford, Sir Nicholas Crispe had in his lifetime a very famous copperas work; as, indeed, there that ingenious gentleman, one of the greatest improvers and one of the most public spirited persons this nation ever bred, introduced several other inventions. Copperas was also formerly made, together with brimstone, in the isle of Sheppey†. But the original and for many ages the principal manufacture of this county was broad cloth of different colours, established chiefly at Cranbrook by King Edward III. who brought over Flemings to improve and perfect (the trade being introduced long before) his subjects in that important art. At this and other places it flourished so much, that even at the close of Queen Elizabeth's reign, and according to some accounts much later, the best for home consumption, and the largest quantities for exportation, were wrought here; many fulling mills being erected upon almost every river, and the greatest plenty of excellent fullers earth affording them singular assistance; insomuch that it is still a tradition, that the yeomanry of this county, for which it has been ever famous, were mostly the descendants of rich clothiers, who laid out the money acquired by their industry in the purchase of lands, which they transmitted, with their free and independent spirit, to their posterity. The duke of Alva's persecution of the Protestants in the Low Countries drove a multitude of Walloons over hither, who brought with them that ingenuity and application for which they had been always distinguished. These diligent and active people settled a manufactory of flannel or baize at Sandwich. By them the silk looms were set up at Canterbury, where they still subsist; and they also introduced the making of thread at Maidstone, where it yet remains, and merits more notice and encouragement than hitherto it has met with.

† *Phil. Trans.* N° xlii. p. 1035—1050.

Upon the river Dart, at the confluence of which with the Thames stands the town of Dartford, was set up, in the reign of Queen Elizabeth, the first mill for making white paper by Mr John Spilman, a German, upon whom, long after, King James conferred the honour of knighthood; but King Charles more sensibly bestowed upon this Sir John Spilman a patent and a pension of 200l. a-year, as a reward of his invention, and for the support of the manufacture. About the year 1590, Godfrey Box, a German, erected upon the same river the first slitting mill which was ever used for making iron wire; and also the first battery mill for making copper plates. Other new inventions, requiring the assistance of water, have been set up on other streams; and a great variety of machines of this sort still subsist in different parts of this county. But these things are now so common, that it would be both tedious and useless to insist upon them. Amongst these, we may reckon the making gunpowder in several places. That manufacture, however, which is now the glory of this county, and indeed of Britain, is ship-building; more especially at the royal yards; as at Woolwich, which was settled by Henry VIII. and some considerable ships built there. At present, there is not only a most complete establishment for the building and equipping men of war, a rope walk, foundery, and magazines; but also many private docks, in which prodigious business is carried on, and multitudes of people are employed. The population of this county in 1811 was more than 373,095.

Kent or Kentucky.

The Goodwin or Godwin Sands, of which the account and the reference were omitted under the word, are remarkable sand banks off the coast of Kent, situated between the North and South Foreland. As they run parallel with the coast for nine miles together, about seven miles and a half from it, they give security to that extensive coast, the Downs; for while the land shelters ships with the wind from south-west to north-west only, the force of the sea is broken by these sands when the wind is at east-south-east. The most dangerous wind when blowing hard in the Downs, is the south-south-west. The space they occupy was formerly a large tract of low ground, belonging to Godwyn earl of Kent, father of Harold II.; and being afterwards enjoyed by the monastery of St Augustine at Canterbury, the whole tract was drowned by the abbot's neglect to repair the wall which defended it from the sea. This happened in the year 1100. Many vessels have been wrecked upon them. See KENT, SUPPLEMENT.

KENTIGERN, ST, or ST MUNGO, a famous saint of the Popish church, who flourished in Scotland in the sixth century, said to have been of the royal blood of both Scots and Picts, being the son of Thametis, the daughter of Loth king of the Picts, by Eugene III. king of Scotland. The bishoprics of Glasgow and St Asaph were founded by him in 560. He obtained the appellation of *Mungo* from the affection of his tutor St Serf or Servanus, bishop of Orkney, who called him *Mongah*, which in the Norwegian language, signifies *dear friend*.

KENTISH TOWN, a village of Middlesex, three miles north of London, near Hampstead, much improved of late by several handsome houses belonging to the citizens of London, &c. A new chapel has lately been erected here.

KENTUCKY, one of the states of North America, situated on the west side of the Alleghany mountains, and formerly attached to Virginia. It is situated between 36° 30′ and 39° 10′ north latitude, and 82° and 89° west longitude; being 330 miles in length, and 180 in breadth. It is bounded north-west by the river Ohio; west, by the Mississippi river; south, by Tennessee; east, by Virginia.

Kentucky. The river Ohio washes the north-western side of Kentucky, in its whole extent. Its principal branches which water this fertile tract of country, are Sandy, Licking, Kentucky, Salt, Green, and Cumberland rivers. These again branch, in various directions, into rivulets of different magnitudes, fertilizing the country in all its parts.—There are five noted salt springs or licks in this country, viz. the higher and lower Blue Springs on Licking river, from some of which, it is said, issue streams of brinish water; the Big Bone lick, Drennon's licks, and Bullet's lick at Saltsburg. The last of these licks, though in low order, has supplied this county and Cumberland with salt at twenty shillings the bushel, Virginia currency; and some is exported to the Illinois country. The method of procuring water from these licks is by sinking wells from 30 to 40 feet deep. The water drawn from these wells is more strongly impregnated with salt than the water from the sea.

This whole country, as far as has yet been discovered, lies upon a bed of limestone, which in general is about six feet below the surface, except in the valleys, where the soil is much thinner. A tract of about 20 miles wide along the banks of the Ohio is hilly broken land, interspersed with many fertile spots. The rest of the country is agreeably uneven, gently ascending and descending at no great distances. This country in general is well timbered; and such is the variety and beauty of the flowering shrubs and plants which grow spontaneously in it, that in the proper season the wilderness appears in blossom. The accounts of the fertility of the soil in this country have in some instances exceeded belief, and probably have been exaggerated. That some parts of Kentucky, particularly the high grounds, are remarkably good, all accounts agree. The lands of the first rate are too rich for wheat, and will produce 50 and 60, and in some instances it is affirmed 100 bushels of good corn an acre. In common the land will produce 30 bushels of wheat or rye an acre. Barley, oats, cotton, flax, hemp, and vegetables of all kinds common in this climate, yield abundantly. The old Virginia planters say, that if the climate does not prove too moist, few soils known will yield more and better tobacco. The climate is healthy and delightful, some few places in the neighbourhood of ponds and low grounds excepted. The inhabitants do not experience the extremes of heat and cold. Snow seldom falls deep or lies long. The winter, which begins about Christmas, is never longer than three months, and is commonly but two, and is so mild as that cattle can subsist without fodder.

As to religion, the prevailing sects are Baptists, Presbyterians, and Methodists. The Baptists are the most numerous. In 1817 they had 421 churches established, besides several congregations where churches were not constituted.

The legislature have made provision for a college in Kentucky, and have endowed it with very considerable landed funds. Schools are established in the several towns, and in general regularly and handsomely supported. In 1810 they had 17 newspapers. They have erected many paper-mills, oil-mills, fulling-mills, saw-mills, and a great number of valuable grist-mills. Their salt works are more than sufficient to supply all the inhabitants at a low price. They make considerable quantities of sugar from the sugar trees. Kentucky.

The population of Kentucky has increased with great rapidity, as appears from the following statement.

In 1784	30,000
1790	73,677
1800	220,959
1810	406,511

This last enumeration includes 80,561 slaves, and 1713 free blacks.

The state government of Kentucky consists of a senate and house of representatives. The latter are chosen annually by the free male inhabitants of 21 years of age, who have been two years resident in the state. The number of representatives is not to exceed 100 or fall below 58. The number of senators may vary from 24 to 38: they are chosen for four years, and renewed by fourths yearly. The governor is elected for four years, and is ineligible the next seven.

The Kentuckians, chiefly emigrants from Virginia, are as remarkable for acuteness of intellect, as they are distinguished for their frank, high spirited, honourable nature. They are brave and patriotic in a high degree, and in times of public danger have come forward with a most honourable zeal to serve and defend their country. Slavery, however, has taught the rich to despise labour, and planted the seeds of other vices in their character. The women are frugal and industrious, though fond of dancing and innocent amusements. The men have acquired a dangerous attachment to gaming. The Kentuckians are distinguished for expertness in the use of the rifle. They live in a very substantial style, and have a pride in being liberal and open handed.

Some manufactures have been established in this state. In 1815 there were six steam mills in operation at the small town of Washington, two for grain, one for cotton, one for wool, and one for other purposes. At Lexington there is a woollen and cotton manufactory on an extensive scale, employing 150 hands each; and several others of smaller size. The whole amount of manufactures in 1810 was estimated at 6,181,024 dollars.

The first white man who discovered this province was one James Macbride, in the year 1754. From this period it remained unexplored till about the year 1767, when one John Finley and some others, trading with the Indians, fortunately travelled over the fertile region now called Kentucky, then but known to the Indians by the name of the Dark and Bloody Grounds, and sometimes the Middle Ground. This country greatly engaged Mr Finley's attention, and he communicated his discovery to Colonel Daniel Boon, and a few more, who conceiving it to be an interesting object, agreed in the year 1769 to undertake a journey in order to explore it. After a long fatiguing march over a mountainous wilderness, in a westward direction, they at length arrived upon its borders; and from the top of an eminence, with joy and wonder descried the beautiful landscape of Kentucky. Here they encamped, and some went to hunt provisions, which were readily procured, there being plenty of game, while Colonel Boon and John Finley made a tour through the country, which

Kentucky, Kepler. which they found far exceeding their expectations; and returning to camp, informed their companions of their discoveries. But in spite of this promising beginning, this company meeting with nothing but hardships and adversity, grew exceedingly disheartened, and was plundered, dispersed, and killed by the Indians, except Colonel Boon, who continued an inhabitant of the wilderness until the year 1771, when he returned home.

Colonel Henderson of North Carolina being informed of this country by Colonel Boon, he and some other gentlemen held a treaty with the Cherokee Indians at Wataga in March 1775, and then purchased from them the lands lying on the south side of Kentucky river for goods at valuable rates, to the amount of 6000l. specie.

Soon after this purchase, the state of Virginia took the alarm, agreed to pay the money Colonel Donaldson had contracted for, and then disputed Colonel Henderson's right of purchase, as a private gentleman of another state in behalf of himself. However, for his eminent services to the country, and for having been instrumental in making so valuable an acquisition to Virginia, that state was pleased to reward him with a tract of land at the mouth of Green river, to the amount of 200,000 acres: and the state of North Carolina gave him the like quantity in Powel's Valley. This region was formerly claimed by various tribes of Indians; whose title, if they had any, originated in such a manner as to render it doubtful which ought to possess it. Hence this fertile spot became an object of contention, a theatre of war, from which it was properly denominated the Bloody Grounds. Their contentions not being likely to decide the right to any particular tribe, as soon as Mr Henderson and his friends proposed to purchase, the Indians agreed to sell; and notwithstanding the valuable consideration they received, long continued troublesome neighbours to the new settlers.

KEPLER, JOHN, one of the most eminent astronomers who have appeared in any age, was born at Wiel on the 27th of September 1571. His father's name was Henry Kepler, an officer of distinction among the troops of Wirtemberg, but reduced to poverty by numerous misfortunes. This exposed young Kepler to many difficulties and interruptions while acquiring the rudiments of his education; but such was his genius, and such his avidity for knowledge, that he surmounted every difficulty, and his proficiency was astonishing. He studied at the university of Tubingen, where he obtained the degree of bachelor in the year 1588, and that of master of philosophy in 1591. In the year 1592 he applied himself to the study of divinity; and the sermons he produced were sufficient indications that he would have excelled as a preacher, had he continued in the clerical profession. The mathematics, however, became his favourite study, for his knowledge of which he acquired such distinguished reputation, that he was invited to Gratz in Styria in the year 1594, to fill the mathematical chair in the university of that city. After this period his chief attention was directed to the study of astronomy, and he made many interesting discoveries respecting the laws of planetary motions.

Two years after his marriage with a lady descended from a noble family, persecution on account of his religion compelled him to quit Gratz, to which he was afterwards recalled by the states of Styria. The calamities of war, however, induced him to look for a residence where he might enjoy greater safety and tranquillity. Kepler. During this uncomfortable situation of affairs, the celebrated Tycho Brahé strongly urged him to settle in Bohemia as his assistant, where he himself had every necessary requisite furnished to him by the emperor Rodolph for the prosecution of his astronomical studies. The numerous and urgent letters which Kepler received upon this subject, and solemn assurances that he should be introduced to the emperor, at length prevailed with him to leave the university, and settle in Bohemia with his family in the year 1600. On his way to that country he was seized with a quartan ague, which afflicted him for seven or eight months, and rendered him incapable of contributing that aid to Tycho which he would otherwise have done. He was likewise displeased with the conduct of this astronomer towards him, and thought that he behaved in an unfriendly manner, by neglecting to do a material service to his family when he had it in his power. Kepler also considered him as by far too reserved, in not communicating to him the whole of his discoveries and improvements. The death of Tycho happened in 1601; and thus the intercourse between these two eminent men being of such short duration, precluded Kepler either from being very serviceable to, or deriving much advantage from, the investigations and researches of the Danish astronomer. Kepler, however, was introduced to the emperor by Tycho, in conformity to his promise, and appointed mathematician to his imperial majesty, with instructions to complete the Rodolphine Tables which that great man had begun. These were not published till the year 1627, owing to a variety of obstructions and difficulties which were thrown in his way. Two years after the publication of this work, he went to Ratisbon, by permission of the emperor, to claim payment of the arrears of his pension, where he was seized with a violent fever, supposed to have been brought upon him by too hard riding; and to this he fell a victim in the month of November 1630, in the 59th year of his age.

The learned world is indebted to this sagacious and able astronomer and mathematician for the discovery of the true figure of the planetary orbits, and the proportions of the motions of the solar system. Like the disciples of Pythagoras and Plato, Kepler [illegible] with a peculiar passion for finding analogies and harmonies in nature; and although this led him to the adoption of very strange and ridiculous conceits, we shall readily be disposed to overlook these, when we reflect that they were the means of leading him to the most interesting discoveries. He was for some time so charmed with the whimsical notions contained in his *Mysterium Cosmographium*, published in 1596, that he declared he would not give up the honour of having invented what was contained in that book for the electorate of Saxony;—so easy is it for the greatest of men to be deceived by a darling hypothesis.

He was the first who discovered that astronomers had been invariably mistaken in always ascribing circular orbits and uniform motions to the planets, since each of them moves in an ellipsis, having one of its foci in the sun; and, after a variety of fruitless efforts, he, on the 15th of May 1618, made his splendid discovery "that the squares of the periodic times of the planets were always

Kepler ‖ Kerckring.

ways in the same proportion as the cubes of their mean distances from the sun." As it was long a favourite opinion of Kepler's, that there are only six primary planets, he seems to have been alarmed at the discovery made by Galileo, of four new planets, or satellites of Jupiter, which gave a deathblow to the doctrines contained in his *Mysterium Cosmographicum*. The sagacity of this wonderful man, and his incessant application to the study of the planetary motions, pointed out to him some of the genuine principles from which these motions originate. He considered gravity as a power that is mutual between bodies; that the earth and moon tend towards each other, and would meet in a point, so many times nearer to the earth than to the moon, as the earth is greater than the moon, if their motions did not prevent it. His opinion of the tides was, that they arise from the gravitation of the waters towards the moon; but his notions of the laws of motion not being accurate, he could not turn his thoughts to the best advantage. The prediction he uttered at the end of his epitome of astronomy, has been long since verified by the discoveries of Sir Isaac Newton, that the discovery of such things (the true laws of gravity) was reserved for the succeeding age, when the Author of nature would be pleased to reveal those mysteries.

To this concise account of the celebrated Kepler, we shall now add a list of his principal publications. *Mysterium Cosmographicum*, already mentioned, 4to; *Paralipomena ad Vitellionem, quibus Astronomiæ Pars Optica traditur*, 1604, 4to; *De Stella Nova in Pede Serpentarii*, 1606, 4to; *Astronomia Nova, seu Physica Cælestis, tradita Commentariis de Motibus Stellæ Martis, ex Observationibus Tyconis Brahei*, 1609, folio; *Dissertationes cum Nuncio Sidereo Galilei*, 1610; *De Cometis, Libri tres*, 1611, 4to; *Ephemerides Novæ*, from 1617 to 1620; *Epitome Astronomiæ Copernicanæ*, in two volumes 8vo, the first published in 1618, and the second in 1622; *Harmonices Mundi*, lib. v. 1619, 4to; *Chilias Logarithmorum in totidem numeros rotundos*, 1624, 4to; *Supplementum Chiliadis*, &c. 1625, 4to; *Tabulæ Rodolphinæ*, 1627, folio; *De Jesu Christi Servatoris anno natalitio*, &c. He was also the author of several other pieces connected with chronology, the mensuration of solids, and trigonometry, with a treatise on dioptrics, an excellent performance for the period in which he flourished.

KERATOPHYTUM, in *Natural History*, a species of GORGONIA.—The keratophyta have been called the *frutices coralloides*, or sea shrubs; and are generally known among naturalists by the different appellations of *lithophyta*, *lithoxyla*, and *keratophyta*.—See GORGONIA, HELMINTHOLOGY *Index*.

KERCKRING, THEODORE, a famous physician of the 17th century, was born at Amsterdam, and acquired a great reputation by his discoveries and his works. He found out the secret of softening amber without depriving it of its transparency; and made use of it in covering the bodies of curious insects in order to preserve them. He was a member of the Royal Society of London, and died in 1693 at Hamburgh, where he had spent the greatest part of his life, with the title of *resident of the grand duke of Tuscany*. His principal works are, 1. *Spicilegium anatomicum*. 2. *Anthropogeniæ ichnographia*. There is also attributed to him an anatomical work, printed in 1671 in folio.

Keri ‖ Kerry.

KERI CETIB, are various readings in the Hebrew Bible; *keri* signifies that which is read; and *cetib* that which is written. For where any such various readings occur, the wrong reading is written in the text, and that is called the *cetib*; and the true reading is written in the margin, with p under it, and called the *keri*. It is generally said by the Jewish writers, that these corrections were introduced by Ezra; but it is most probable, that they had their original from the mistakes of the transcribers after the time of Ezra, and the observations and corrections of the Mazorites. Those Keri cetibs, which are in the sacred books written by Ezra himself, or which were taken into the canon after his time, could not have been noticed by Ezra himself; and this affords a presumption, that the others are of late date. Those words amount to about 1000; and Dr Kennicott, in his *Dissertatio Generalis*, remarks, that all of them, excepting 14, have been found in the text of manuscripts.

KERMAN, the capital city of a province of that name in Persia, seated in E. Long. 56. 30. N. Lat. 30. 0. The province lies in the south part of Persia, on the Persian gulf. The sheep of this country, towards the latter end of the spring, shed their wool, and become as naked as sucking pigs. The principal revenue of the province consists in these fleeces.

KERMES, in *Zoology*, the name of an insect produced in the excrescences of a species of the oak. See COCCUS.

KERMES Mineral, so called from its colour, which resembles that of vegetable kermes, is one of the antimonial preparations. See CHEMISTRY and MATERIA MEDICA *Index*.

KERN, or KERNE, a term in the ancient Irish militia, signifying a *foot soldier*. Camden tells us, the armies of Ireland consisted of cavalry, called *gallóglasses*; and infantry, lightly armed, called *kernes*.—The kernes bore swords and darts; to the last were fitted cords, by which they could recover them after they had been launched out.

KERNES, in our laws, signify idle persons or vagabonds.

KERRY, a county of Ireland, in the province of Munster, anciently called *Corrigia*, or "the rocky country," from *Cerrig* or *Carric*, "a rock." It is bounded by the Shannon, which divides it from Clare on the north, by Limerick and Cork on the east, by another part of Cork on the south, and by the Atlantic ocean on the west. The best town in it is Dingle, situated in a bay of the same name. It comprehends a great part of the territory formerly called *Desmond*, and consists of very different kinds of soil. The south parts are plain and fertile, but the north full of high mountains, which, though remarkably wild, produce a great number of natural curiosities. It contains 636,905 Irish plantation acres, 84 parishes, 19,400 houses, and about 140,000 inhabitants. It is about 57 miles long, and from 18 to 40 in breadth, and lies within N. Lat. 51. 30. and 52. 24.; the longitude at the mouth of Kenmare river being 10° 35′ west, or 42′ 20″ difference of time with London. It is the fourth county as to extent in Ireland, and the second in this province; but in respect to inhabitants and culture doth not equal many smaller counties. In it there are two episcopal sees, which

have

Kerry ‖ Keswick.

have been annexed to the bishopric of Limerick since the year 1660, viz. Ardfert and Aghadoe. The see of Ardfert was anciently called the diocese of *Kerry*, and its bishops were named bishops of *Kerry*. Few mountains in Ireland can vie with those in this county for height; during the greater part of the year their sides are obscured by fogs, and it must be a very serene day when their tops appear. Iron ore is to be had in great plenty in most of the southern baronies. The principal rivers are the Blackwater, Feale, Gale, and Brick, Cashin, Mang, Lea, Flesk, Laun, Carrin, Fartin, Inry, and Roughty; and the principal lake is Killarney. There are some good medicinal waters discovered in this country; particularly Killarney water, Iveragh Spa, Felloswell, Dingle, Castlemain, and Trallee Spas, as also a saline spring at Maherybeg. Some rare and useful plants grow in Kerry, of which Dr Smith gives a particular account in his history of that county. See KERRY, SUPPLEMENT.

KERSEY, a kind of coarse woollen cloth, made chiefly in Kent and Devonshire.

KESITAH. This word is to be met with in Genesis and in Job, and is translated in the Septuagint and Vulgate "sheep or lambs:" But the Rabbins and modern interpreters are generally of opinion, that kesitah signifies rather a piece of money. Bochart and Eugubinus are of opinion the Septuagint meant *minæ*, and not lambs: in Greek *hecatomnon*, ἑκατομνων, instead of ἑκατον αμνων. Now a mina was worth 60 Hebrew shekels, and consequently 6l. 16s. 10½d. sterling. M. de Pelletier of Rouen is of opinion, that kesitah was a Persian coin, stamped on one side with an archer (*Kesitah*, or *Keseth*, in Hebrew signifying "a bow"), and on the other with a lamb; that this was a gold coin known in the east by the name of a *daric*. Several learned men, without mentioning the value of the kesitah, say it was a silver coin, the impression whereof was a sheep, for which reason the Septuagint and Vulgate translate it by this name. Calmet is of opinion, that kesitah was a purse of gold or silver. In the east they reckon at present by purses. The word *kista* in Chaldee signifies "a measure, a vessel." And Eustathius says, that kista is a Persian measure. Jonathan and the Targum of Jerusalem translate *kesitah* "a pearl." (Gen. xxxiii. 19. Job. xlii. 11.). Or 9l. English, supposing, as Dr Prideaux does, that a shekel is worth 3s. A daric is a piece of gold, worth, as Dr Prideaux says, 25s. English.

KESSEL, a town of Upper Guelderland, in the Netherlands, with a handsome castle. It is the chief town in the territory of the same name, and seated on the river Meuse, between Ruremond and Venlo, it being about five miles from each. It was ceded to the king of Prussia by the treaty of Utrecht. E. Long. 6. 13. N. Lat. 41. 22.

KESSELDORF, a village of Germany, in the circle of Upper Saxony, three miles below Dresden, remarkable for the battle gained by the king of Prussia over the Saxons, on the 15th of December 1745.

KESTREL, the English name of a hawk, called also the *stannel* and the *windhover*, and by authors the *tinninculus* and *chenchris*. It builds with us in hollow oaks, and feeds on partridges and other birds. See FALCO, ORNITHOLOGY *Index*.

KESWICK, a town of Cumberland, situated on the side of a lake in a fruitful plain, almost encompassed with mountains, called the *Derwent Fells*. It was formerly a town of good note, but is now much decayed. However, it is still noted for its mines and miners, who have a convenient smelting-house on the side of the river Derwent, the stream of which is so managed as to make it work the bellows, hammers, and forge, as also to saw boards. There is a workhouse here for employing the poor of this parish and that of Crossthwait. W. Long. 3. 0. N. Lat. 54. 30. Keswick ‖ Kew.

KETCH, a vessel equipped with two masts, viz. the main-mast and mizen-mast, and usually from 100 to 250 tons burden.—Ketches are principally used as yachts or as bomb vessels; the former of which are employed to convey princes of the blood, ambassadors, or other great personages, from one part to another; and the latter are used to bombard citadels, towns, or other fortresses. The bomb ketches are therefore furnished with all the apparatus necessary for a vigorous bombardment; they are built remarkably strong, as being fitted with a greater number of *riders* than any other vessel of war; and indeed this reinforcement is absolutely necessary to sustain the violent shock produced by the discharge of their mortars, which would otherwise in a very short time shatter them to pieces.

KETTLE, in the art of war, a term the Dutch give to a battery of mortars, because it is sunk under ground.

KETTLE Drums, are formed of two large basins of copper or brass rounded at the bottom, and covered over with vellum or goat skin, which is kept fast by a circle of iron, and by several holes fastened to the body of the drum, and a like number of screws to screw up and down, and a key for the purpose. The two basins are kept fast together by two straps of leather which go through two rings, and are fastened the one before and the other behind the pommel of the kettle drum's saddle. They have each a banner of silk or damask, richly embroidered with the sovereign's arms or with those of the colonel, and are fringed with silver or gold; and, to preserve them in bad weather, they have each a cover of leather. The drumsticks are of crab-tree or of any other hard wood, of eight or nine inches long, with two knobs on the ends, which beat the drum head and cause the sound. The kettle-drum with trumpets is the most martial sound of any. Each regiment of horse has a pair.

KETTLE Drummer, a man on horseback appointed to beat the kettle drums, from which he takes his name. He marches always at the head of the squadron, and his post is on the right when the squadron is drawn up.

KEVELS, in *Ship-building*, a frame composed of two pieces of timber, whose lower ends rest in a sort of step or foot, nailed to the ship's side, from whence the upper ends branch outward into arms or horns, serving to belay the great ropes by which the bottoms of the main-sail and fore-sail are extended.

KEW, a village of Surry, in England, opposite to Old Brentford, 10 miles west from London. Here is a chapel of ease erected at the expence of several of the nobility and gentry in the neighbourhood, on a piece of ground that was given for that purpose by the late Queen Anne. Here the late Mr Molineaux, secretary

Kew || Key.

to the late king, when prince of Wales, had a fine seat on the Green, which became the residence of the late prince and princess of Wales, who greatly improved both the house and gardens; now occupied by his present majesty, who has greatly enlarged the gardens, and formed a junction with them and Richmond gardens. The gardens of Kew are not very large, nor is their situation by any means advantageous, as it is low and commands no prospects. Originally the ground was one continued dead flat; the soil was in general barren, and without either wood or water. With so many disadvantages it was not easy to produce any thing even tolerable in gardening; but princely munificence, guided by a director equally skilled in cultivating the earth and in the politer arts, overcame all difficulties. What was once a desert is now an Eden. In 1758, an act passed for building a bridge across the Thames to Kew Green, and a bridge was built of eleven arches; the two piers and their dependant arches on each side next the shore, built of brick and stone; the intermediate arches entirely wood; the centre arch 50 feet wide, and the road over the bridge 30.—But this bridge was taken down, and in its place a very elegant one was erected and completed about the year 1791.

KEXHOLM, that part of Finland which borders upon Russia. The lake Ladoga crosses it, and divides it into two parts. By the treaty between Russia and Sweden in 1721, the Swedes were obliged to abandon the best part to the Russians, who now possess the whole. The country in general is full of lakes and marshes, thinly inhabited, and badly cultivated. The lake above mentioned is 120 miles in length.

KEXHOLM, or *Carelgorod*, a town of Russia in a territory of the same name, not very large, but well fortified, and has a strong castle. The houses are built with wood. It formerly belonged to the Russians, after which the Swedes had possession of it for a whole century; but it was retaken by the Russians in 1710. Near it is a considerable salmon fishery. It is seated on two islands on the north-west side of the lake Ladoga, in E. Long. 30. 25. N. Lat. 61. 12. Near it is another town called *New Kexholm*.

KEY, an instrument for the opening of locks. See LOCK.

L. Molinus has a treatise of keys, *De clavibus veterum*, printed at Upsal: he derives the Latin name *clavis*, from the Greek κλειω, *claudo*, "I shut," or from the adverb *clam*, "privately;" and adds, that the use of keys is yet unknown in some parts of Sweden.

The invention of keys is owing to one Theodore of Samos, according to Pliny and Polydore Virgil: but this must be a mistake, the use of keys having been known before the siege of Troy; mention even seems made of them in the 19th chapter of Genesis.

Molinus is of opinion, that keys at first only served for the untying certain knots, wherewith they anciently secured their doors: but the Laconic keys, he maintains, were nearly akin in use to our own; they consisted of three single teeth, and made the figure of an E; of which form there are still some to be seen in the cabinets of the curious.

There was another key called Σαλαγωγα, made in the manner of a male screw; which had its corresponding female in a bolt affixed to the door. *Key* is hence become a general name for several things serving to shut up or close others. See the article LOCK.

Key || Keyser's Pills.

KEY, or *Key-stone, of an Arch or Vault*, is the last stone placed a-top thereof; which being wider and fuller at the top than bottom, wedges, as it were, and binds all the rest. The key is different in the different orders: in the Tuscan and Doric it is a plain stone only projecting; in the Ionic it is cut and waved somewhat after the manner of consoles; in the Corinthian and Composite it is a console enriched with sculpture, foliages, &c.

KEY is also used for ecclesiastical jurisdiction; particularly for the power of excommunicating and absolving. The Romanists say, the pope has the power of the keys, and can open and shut paradise as he pleases; grounding their opinion on that expression of Jesus Christ to Peter, "I will give thee the keys of the kingdom of heaven." In St Gregory we read that is was the custom heretofore for the popes to send a golden key to princes, wherein they inclosed a little of the filings of St Peter's chains kept with a world of devotion at Rome; and that these keys were worn in the bosom, as being supposed to contain some wonderful virtues.

KEY is also used for an index or explanation of a cipher. See CIPHER.

Keys of an Organ, Harpsichord, &c. those little pieces in the fore part of those instruments, by means whereof the jacks play so as to strike the strings. These are in number 28 or 29. In large organs there are several sets of the keys, some to play the secondary organ, some for the main body, some for the trumpet, and some for the echoing trumpet, &c.: in some there are but a part that play, and the rest are only for ornament. There are 20 slits in the large keys which make half notes. See the article ORGAN, &c.

KEY, in *Music*, a certain fundamental note or tone, to which the whole piece, be it in cantata, sonata, concerto, &c. is accommodated, and with which it usually begins but always ends.

KEY, or *Quay*, a long wharf, usually built of stone, by the side of a harbour or river, and having several storehouses for the convenience of lading and discharging merchant ships. It is accordingly furnished with posts and rings, whereby they are secured; together with cranes, capsterns, and other engines, to lift the goods into or out of the vessels which lie alongside.

The verb *cajare*, in old writers, according to Scaliger, signifies to *keep in* or *restrain*; and hence came our term *key* or *quay*, the ground where they are made being bound in with planks and posts.

KEYS are also certain sunken rocks lying near the surface of the water, particularly in the West Indies.

KEYNSHAM, a town of Somersetshire, 116 miles from London. It is a great thoroughfare in the lower road between Bath and Bristol. They call it proverbially *smoky* Keynsham, and with equal reason they might call it *foggy*. It has a fine large church, a stone bridge of 15 arches over the Avon to Gloucestershire, and another over the river Chew. Its chief trade is malting. It has a charity school, a weekly market, and three fairs. Population 1748 in 1811.

KEYSER's PILLS, a celebrated mercurial medicine, the method of preparing which was purchased by the French

Keyser's Pills ‖ Kiang-nan.

French government, and was afterwards published by M. Richard. It is the acetate of mercury. See CHEMISTRY and MATERIA MEDICA *Index*.

KEYSLER, JOHN GEORGE, a learned German antiquarian, was born at Thournex in 1689. After studying at the university of Halle, he was appointed preceptor to Charles Maximilian and Christian Charles, the young counts of Giech Buchau; with whom he travelled through the chief cities of Germany, France, and the Netherlands, gaining great reputation among the learned as he went along, by illustrating several monuments of antiquity, particularly some fragments of Celtic idols lately discovered in the cathedral of Paris. Having acquitted himself of this charge with great honour, he procured in 1716 the education of two grandsons of Baron Bernstorff, first minister of state to his Britannic majesty as elector of Brunswick Lunenburg. However, obtaining leave in 1718, to visit England, he was elected a fellow of the Royal Society for a learned essay *De Dea Nehelennia, numine veterum Walachorum topico:* he gave also an explanation of the ancient monument on Salisbury plain called *Stonehenge*, with a dissertation on the Consecrated Misletoe of the Druids. Which detached essays, with others of the same kind, he published on his return to Hanover, under the title of *Antiquitates selectæ Septentrionales et Celticæ*, &c. He afterwards made the grand tour with the young barons, and to this tour we owe the publication of his travels; which were translated into English, and published in 1756, in 4 volumes, 4to. Mr Keysler on his return spent the remainder of his life under the patronage of his noble pupils, who committed their fine library and museum to his care, with a handsome income. He died in 1743.

KIAM, a great river of China, which takes its rise near the western frontier, crosses the whole kingdom eastward, and falls into the bay or gulf of Nanking, a little below that city.

KIANG-SI, a province of China, bounded on the north by that of Kiang-nan, on the west by Houquang, on the south by Quang-tong, and on the east by Fo-kien and Tche-kiang. The country is extremely fertile; but it is so populous that it can scarcely supply the wants of its inhabitants: on this account they are very economical; which exposes them to the sarcasms and raillery of the Chinese of the other provinces: however, they are people of great solidity and acuteness, and have the talent of rising rapidly to the dignities of the state. The mountains are covered with simples; and contain in their bowels mines of gold, silver, lead, iron, and tin; the rice it produces is very delicate, and several barks are loaded with it every year for the court. The porcelain made here is the finest and most valuable of the empire. This province contains 13 cities of the first class, and 78 of the second and third.

KIANG-nan, a province of China, and one of the most fertile, commercial, and consequently one of the richest in the empire. It is bounded on the west by the provinces of Ho-nan and Hou-quang; on the south by Tche-kiang and Kiang-si; and on the east by the gulf of Nan-king: the rest borders on the province of Chang-tong. The emperors long kept their court in this province; but reasons of state having obliged them to move nearer to Tartary, they made choice of Pe-king for the place of their residence. This province is of vast extent; it contains fourteen cities of the first class, and ninety-three of the second and third. These cities are very populous, and there is scarcely one of them which may not be called a place of trade. Large barks can go to them from all parts; because the whole country is intersected by lakes, rivers, and canals, which have a communication with the great river Yang-tse-kiang, which runs through the middle of the province. Silk stuffs, lacquer ware, ink, paper, and in general every thing that comes from Nanking, as well as from the other cities of the province, are much more esteemed, and fetch a higher price, than those brought from the neighbouring provinces. In the village of Chang-hai alone, and the villages dependent on it, there are reckoned to be more than 200,000 weavers of common cotton cloths. The manufacturing of these cloths gives employment to the greater part of the women.—In several places on the sea coast there are found many salt pits, the salt of which is distributed all over the empire. In short, this province is so abundant and opulent, that it brings every year into the emperor's treasury about 32,000,000 taels (or ounces of silver), exclusive of the duties upon every thing exported or imported. The people of this country are civil and ingenious, and acquire the sciences with great facility: hence many of them become eminent in literature, and rise to offices of importance by their abilities alone. This province is divided into two parts, each of which has a distinct governor. The governor of the eastern part resides at Sou-tcheou-fou, that of the western at Ngan-king-fou. Each of these governors has under his jurisdiction seven *fou*, or cities of the first class.

Kiang nan ‖ Kiddermin-ster.

KIBURG, a town of the canton of Zurich in Switzerland, with a castle; seated on the river Theoff, in E. Long. 8. 50. N. Lat. 47. 20.

KID, in *Zoology*, the name by which young goats are called. See GOAT and CAPRA, MAMMALIA *Index*.

KIDDER, DR RICHARD, a learned English bishop, was born in Sussex, and bred at Cambridge. In 1689, he was installed dean of Peterborough; and, in 1691, was nominated to the bishopric of Bath and Wells, in the room of Dr Thomas Ken, who had been deprived for not taking the oaths to King William and Queen Mary. He published, 1. The young man's duty. 2. A demonstration of the Messiah, 3 vols 8vo. 3. A commentary on the five books of Moses, 2 vols 8vo; and several other pious and valuable tracts. He was killed with his lady in his bed by the fall of a stack of chimneys, at his house in Wells, during the great storm in 1703. The bishop, in the dissertation prefixed to his commentary on the five books of Moses, having reflected upon Monsieur Le Clerc, some letters passed between them in Latin, which are published by Le Clerc in his *Bibliotheque Choisie*.

KIDDERMINSTER, or KEDDERMINSTER, a town of Worcestershire, seated under a hill on the river Stour, not far from the Severn, 128 miles from London. It is a large town of 1606 houses, with 8038 inhabitants, who carry on an extensive trade in weaving in various branches. In 1735 a carpet manufactory was established with success, so as to employ in 1772 above 250 looms; and there are upwards of 700 looms employed

Kidderminster || Kidnapping.

ployed in the silk and worsted. Above 1600 hands are employed as spinners, &c. in the carpet looms only in the town and neighbourhood; upwards of 1400 are employed in preparing yarn, which is used in different parts of England in carpeting; and it is supposed not less than 2000 are employed in the silk and worsted looms in the town and neighbourhood. The silk manufacture was established in 1755. The town is remarkably healthy, and has also an extensive manufacture of quilting in the loom in imitation of Marseilles quilting. Here is a Presbyterian meeting house; and they have a handsome church, two good free schools, a charity school, and two alms houses, &c. The town is governed by a bailiff, 12 capital burgesses, 25 common councilmen, &c. who have a town hall. The population in 1801 amounted to 6110. By the late inland navigation, it has communication by the junction of the Severn canal with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles, in the counties of Lincoln, Nottingham, York, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. This parish extends to Bewdley bridge, has a weekly market, and three fairs. W. Long. 2. 15. N. Lat. 52. 28.

KIDDERS, those that badge or carry corn, dead victuals, or other merchandise, up and down to sell: every person being a common badger, kidder, lader, or carrier, &c. says the stat. 5 Eliz. cap. 12. And they are called *kiddiers*, 13 Eliz. cap. 25.

KIDDLE, or KIDEL, (*Kidellus*), a dam or wear in a river with a narrow cut in it, for the laying of pots or other engines to catch fish.

The word is ancient; for in Magna Charta, cap. 24. we read, *Omnes kidelli deponantur per Thamesiam et Medweyam, et per totam Angliam, nisi per costeram maris.* And by King John's charter, power was granted to the city of London, *de kidellis amovendis per Thamesiam et Medweyam.* A survey was ordered to be made of the wears, mills, stanks, and kiddels, in the great rivers of England, 1 Hen. IV. Fishermen of late corruptly call these dams *kettles;* and they are much used in Wales and on the sea coasts of Kent.

KIDDINGTON, a town of Oxfordshire, four miles from Woodstock, and 12 from Oxford. It is situated on the Glym river, which divides the parish in two parts, viz. Over and Nether Kiddington, in the latter of which stands the church. This parish was given by King Offa in 780 to Worcester priory. Here King Ethelred had a palace; in the garden of the manor house is an antique font brought from Edward the Confessor's chapel at Islip, wherein he received baptism. In Hill wood near this place is a Roman encampment in extraordinary preservation, but little noticed.

KIDNAPPING, the forcible abduction or stealing away of man, woman, or child, from their own country, and sending them into another. This crime was capital by the Jewish law: "He that stealeth a man and selleth him, or if he be found in his hand, shall surely be put to death*." So likewise in the civil law, the offence of spiriting away and stealing men and children, which was called *plagium*, and the offenders *plagiarii*, was punished with death. This is unquestionably a very heinous crime, as it robs the king of his subjects, banishes a man from his country, and may in its consequence be productive of the most cruel and disagreeable hardships; and therefore the common law of England has punished it with fine, imprisonment, and pillory. And also the statute 11 and 12 W. III. c. 7. though principally intended against pirates, has a clause that extends to prevent the leaving of such persons abroad as are thus kidnapped or spirited away; by enacting, that if any captain of a merchant vessel shall (during his being abroad) force any person on shore, or wilfully leave him behind, or refuse to bring home all such men as he carried out, if able and desirous to return, he shall suffer three months imprisonment.

Kidnapping || Kilda.

* *Exodus*, xxi. 16.

KIDNEYS, in *Anatomy*. See ANATOMY, N° 101.

KIDNEY-Bean. See PHASEOLUS, BOTANY *Index*.

KIEL, a city of Germany, in the duchy of Holstein, in the circle of Lower Saxony, and the residence of the duke of Holstein Gottorp. It has a castle, and a university founded in 1665; and there is a very celebrated fair held here. It is seated at the bottom of a bay of the Baltic sea called *Killerwick*, at the mouth of the river Schwentin, in E. Long. 10. 17. N. Lat. 54. 26.

KIGGELARIA, in *Botany*, a genus of plants belonging to the dioecia class; and in the natural method ranking under the 37th order, *Columniferæ*. See BOTANY *Index*.

KIGHLEY, a town in the west riding of Yorkshire, six miles to the south-east of Skipton in Craven. It stands in a valley surrounded with hills, at the meeting of two brooks, which fall into the river Are one mile below it. Every family is supplied with water brought to or near their doors in stone troughs from a never-failing spring on the west side of it. The parish is six miles long and two broad, and is 60 miles from the east and west seas; yet at the west end of it, near Camel Cross, is a rising ground, from which the springs on the east side of it run to the east sea, and those on the west to the west sea. By means of inland navigation, this town has a communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles, in the counties of Lincoln, Nottingham, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. Population 6864 in 1811.

KILARNEY. See KILLARNEY.

KILBEGGAN, a post, fair, and borough town of Ireland, in the county of Westmeath and province of Leinster, 44 miles from Dublin. It formerly returned two members to parliament; patronage in the Lambert family. It is seated on the river Brosna, over which there is a bridge. There was here a monastery founded in 1200, and dedicated to the Virgin Mary, and inhabited by monks from the Cistertian abbey of Melefont. The fairs are two.

KILDA, ST, one of the Hebrides or Western islands of Scotland. It lies in the Atlantic ocean, about 58° 30′ north latitude; and is about three English miles in length from east to west, and its breadth from south to north not less than two. The ground of St Kilda, like much the greatest part of that over all the Highlands, is much better calculated for pasture than tillage.—

Kilda. lage.—Restrained by idleness, a fault or vice much more pardonable here than in any other part of Great Britain, or discouraged by the form of government under which they live, the people of the island study to rear up sheep, and to kill wild-fowl, much more than to engage deeply in the more toilsome business of husbandry.—All the ground hitherto cultivated in this island lies round the village. The soil is thin, full of gravel, and of consequence very sharp. This, though naturally poor, is, however, rendered extremely fertile, by the singular industry of very judicious husbandmen: these prepare and manure every inch of their ground, so as to convert it into a kind of garden. All the instruments of agriculture they use, or indeed require, according to their system, are a spade, a mall, and a rake or harrow. After turning up the ground with a spade, they rake or harrow it very carefully, removing every small stone, every noxious root or growing weed that falls in their way, and pound down every stiff clod into dust. It is certain that a small number of acres well prepared in St Kilda, in this manner, will yield more profit to the husbandman than a much greater number when roughly handled in a hurry, as is the case in the other Western isles. The people of St Kilda sow and reap much earlier than any of their neighbours on the western coast of Scotland. The heat of the sun, reflected from the hills and rocks into a low valley facing the south-east, must in the summer time be quite intense; and however rainy the climate is, the corn must for these reasons grow very fast and ripen early.

The harvest is commonly over at this place before the beginning of September: and should it fall out otherwise, the whole crop would be almost destroyed by the equinoctial storms. All the islanders on the western coast have great reason to dread the fury of autumnal tempests: these, together with the excessive quantities of rain they have generally throughout seven or eight months of the year, are undoubtedly the most disadvantageous and unhappy circumstances of their lives.

Barley and oats are the only sorts of grain known at St Kilda; nor does it seem calculated for any other. Fifty bolls of the former, old Highland measure, are every year brought from thence to Harris; and all the Western islands hardly produce any thing so good of the kind. Potatoes have been introduced among that people only of late, and hitherto they have raised but small quantities of them. The only appearance of a garden in this whole land, so the natives call their principal island in their own language, is no more than a very inconsiderable piece of ground, which is enclosed and planted with some cabbages. On the east side of the island, at a short distance from the bay, lies the village, where the whole body of this little people (the number amounting in 1764 to 88, and in 1799 to about 120) live together like the inhabitants of a town or city. It is certain that the inhabitants were much more numerous formerly than at present; and the island, if under proper regulations, might easily support 300 souls. Martin, who visited it about the end of the 17th century, found 180 persons there; but about the year 1730, one of the people coming to the island of Harris, was seized with the smallpox and died. Unluckily his clothes were carried away by one of his relations next year; and thus was the infection communicated, which made such havock, that only four grown persons were left alive. The houses are built in two rows, regular, and facing one another; with a tolerable causeway in the middle, which they call the *street*. These habitations are made and contrived in a very uncommon manner. Every one of them is flat on the roof, or nearly so, much like the houses of some oriental nations. That from any one of these the St Kildans have borrowed their manner of building, no man of sense will entertain a suspicion. They have been taught this lesson by their own reason, improved by experience. The place in which their lot has fallen is peculiarly subject to violent squalls and furious hurricanes: were their houses raised higher than at present, they believe the first winter storm would bring them down about their ears. For this reason the precaution they take in giving them roofs much flatter than ordinary seems to be not altogether unnecessary. The walls of these habitations are made of a rough gritty kind of stones, huddled up together in haste, without either lime or mortar, from eight to nine feet high. In the heart of the walls are the beds, which are overlaid with flags, and large enough to contain three persons. In the side of every bed is an opening, by way of door, which is much too narrow and low to answer that purpose. All their dwelling houses are divided into two apartments by partition walls. In the division next the door, which is much the largest, they have their cattle stalled during the whole winter season; the other serves for kitchen, hall, and bedroom. Kilda.

It will be readily expected, that a race of men and women bred in St Kilda must be a very slovenly generation, and every way inelegant. It is indeed impossible to defend them from this imputation. Their method of preparing a sort of manure, to them indeed of vast use, proves that they are very indelicate. After having burnt a considerable quantity of dried turf, they spread the ashes with the nicest care over the floor of that apartment in which they eat and sleep. These ashes, so exactly laid out, they cover with a rich friable sort of earth; over this bed of earth they scatter a proportionable heap of that dust into which peats are apt to crumble away: this done, they water, tread, and beat the whole compost into a hard floor, on which they immediately make new fires very large, and never extinguished till they have a sufficient stock of new ashes on hand. The same operations are repeated with a never-failing punctuality, till they are just ready to sow their barley; by that time the walls of their houses are sunk down, or, to speak more properly, the floors risen about four or five feet high.

To have room enough for accumulating heaps of this compost one above another, the ancient St Kildans had ingenuity enough to contrive their beds within the linings of their walls; and it was for the same reason they took care to raise these walls to a height far from being common in the other Western islands.

It is certain that cleanliness must contribute greatly to health, and of course longevity; but in spite of that instance of indelicacy now given, and many more which might have been added, the people of this island are not more short lived than other men. Their total want

Kilda. of those articles of luxury, which have so natural a tendency to destroy the constitution of the human body, and their moderate exercises, will, together with some other circumstances, keep the balance of life equal enough between them and those who are absolute strangers to slovenliness.

Besides the dwelling houses already described, there are a prodigious number of little cells dispersed over all the island; which consist entirely of stones, without any the smallest help of timber. These cells are from 12 to 18 feet in length, and a little more than seven in height. Their breadth at the foundation is nearly equal to the height. Every stone hangs above that immediately below, not perpendicularly, but inclines forward, so as to be nearer the opposite side of the grotto, and thus by imperceptible degrees till the two highest courses are near enough to be covered by a single flag at the top. To hinder the rain from falling down between the interstices above, the upper part of the building is overlaid with turf which looks like a fine green sward while new. The inhabitants secure their peats, eggs, and wild fowl, within these small repositories: every St Kildan has his share of them, in proportion to the extent of land he possesses, or the rent he pays to the steward. From the construction of these cells, and the toil they must have cost before they could have been finished, it seems plain, that those who put them together, were, if not more ingenious than their neighbours in the adjacent islands, at least more industrious than their own successors.

The St Kilda method of catching wild fowl is very entertaining. The men are divided into fowling parties, each of which consists generally of four persons distinguished by their agility and skill. Each party must have at least one rope about 30 fathoms long; this rope is made out of a strong raw cow hide, salted for that very purpose, and cut circularly into three thongs all of equal length; these thongs being closely twisted together, form a three-fold cord, able to sustain a great weight, and durable enough to last for about two generations: to prevent the injuries it would otherwise receive from the sharp edges of the rocks, against which they must frequently strike, the cord is lined with sheep skins, dressed in much the same manner.

This rope is a piece of furniture indispensably necessary, and the most valuable implement a man of substance can be possessed of in St Kilda. In the testament of a father, it makes the very first article in favour of his eldest son: should it happen to fall to a daughter's share, in default of male heirs, it is reckoned equal in value to the best two cows in the island.

By the help of such ropes, the people of the greatest prowess and experience here traverse and examine rocks prodigiously high. Linked together in couples, each having either end of the cord fastened about his waist, they go frequently through the most dreadful precipices: when one of the two descends, his colleague plants himself on a strong shelf, and takes care to have such sure footing there, that if his fellow adventurer makes a false step, and tumbles over, he may be able to save him.

The following anecdote of a steward of St Kilda's deputy will give the reader a specimen of the dangers they undergo, and at the same time of the uncommon strength of the St Kildans. This man, observing his colleague lose his hold, and tumbling down from above, placed himself so firmly upon the shelf where he stood, that he sustained the weight of his friend, after falling the whole length of the rope. Undoubtedly these are stupendous adventures, and equal to any thing in the feats of chivalry. Mr Macaulay gives an instance of the dexterity of the inhabitants of St Kilda in catching wild fowl, to which he was an eye witness. Two noted heroes were drawn out from among all the ablest men of the community: one of them fixed himself on a craggy shelf; his companion went down 60 fathoms below him; and after having darted himself away from the face of a most alarming precipice hanging over the ocean, he began to play his gambols; he sung merrily, and laughed very heartily: after having performed several antic tricks, and given all the entertainment his art could afford, he returned in triumph, and full of his own merit, with a large string of fowls about his neck, and a number of eggs in his bosom. This method of fowling resembles that of the Norwegians, as described by Bishop Pontoppidan. Kilda, Kildare.

KILDARE, a town of Ireland, and capital of a county of the same name, is situated 28 miles south-west of Dublin. It is governed by a sovereign, recorder, and two portrieves. The church of Kildare was very early erected into a cathedral with episcopal jurisdiction, which dignity it retains to this day; the cathedral, however, has been for several years neglected, and at present is almost in ruins. St Brigid founded a nunnery at Kildare, which afterwards came into the possession of the regular canons of St Augustin; this saint died 1st February 523, and was interred here; but her remains were afterwards removed to the cathedral church of Down. In the year 638, *Aod Dubh* or *Black Hugh* king of Leinster, abdicated his throne, and took on him the Augustinian habit in this abbey; he was afterwards chosen abbot and bishop of Kildare, and died on the 10th May. In 756, Eiglitigin the abbot, who was also bishop of Kildare, was killed by a priest as he was celebrating mass at the altar of St Brigid; since which time no priest whatsoever was allowed to celebrate mass in that church in the presence of a bishop. In 1220 Henry de Loundres archbishop of Dublin put out the fire called *inextinguishable*, which had been preserved from a very early time by the nuns of St Brigid. This fire was however lighted, and continued to burn till the total suppression of monasteries. Here was also a Gray abbey on the south side of the town, erected for friars of the Franciscan order, or, as they were more generally called, *Gray friars*, in the year 1260, by Lord William de Vescy; but the building was completed by Gerald Fitzmaurice, Lord Offaley. A considerable part of this building yet remains, which appears not to have been of very great extent. A house for White friars was likewise founded in this town by William de Vesey in 1290; the round tower here is 130 feet high, built of white granite to about 12 feet above the ground, and the rest of common blue stone. The pedestal of an old cross is still to be seen here; and the upper part of a cross lies near it on the ground. The number of inhabitants is stated at 36,000.

KILDARE, a county of Ireland, in the province of Leinster, which is 37 miles in length and 20 in breadth;

Kildare || Kilkenny.

breadth; and is bounded on the east by Dublin and Wicklow, on the West by King's and Queen's counties, on the north by East Meath, and on the south by Carlow. It is a fine arable country, well watered by the Barrow, Liffey, and other rivers, and well inhabited and cultivated, containing 228,590 Irish plantation acres, 100 parishes, 10 baronies, and 4 boroughs. The chief town is of the same name, and gave title of earl to the noble family of Fitzgerald. It was anciently called *Chilledair*, i. e. "the wood of oaks," from a large forest which comprehended the middle part of this county; in the centre of this wood was a large plain, sacred to heathen superstition, and at present called the *Curragh of Kildare;* at the extremity of this plain, about the commencement of the 6th century, St Brigid, one of the heathen vestals, on her conversion to the Christian faith, founded, with the assistance of St Conlæth, a church and monastery; near which, after the manner of the Pagans, St Brigid kept the sacred fire in a cell, the ruins of which are still visible. See KILDARE, SUPPLEMENT.

KILDERKIN, a liquid measure, containing two firkins.

KILKENNY, a county of Ireland, in the province of Leinster, bounded on the south by the county of Waterford, on the north by the Queen's county, on the west by the county of Tipperary, on the east by the counties of Wexford and Carlow, and on the north-west by Upper Ossory. The greatest length of this county from north to south is 38 miles, the breadth from east to west 18; and it contains 10 baronies. It is one of the most healthful, pleasant, and populous counties of Ireland. It contains 287,650 Irish plantation acres, 96 parishes, and in 1811 had 108,000 inhabitants. Gilbert Clare, earl of Gloucester and Hereford, marrying Isabella, one of the daughters and coheiresses of William earl Marshal, received as her dower the county of Kilkenny. See KILKENNY, SUPPLEMENT.

KILKENNY, the capital of a county of the same name in Ireland, situated in the province of Leinster, 57 miles south-west of Dublin. It takes its name from the cell or church of Canic, who was an eminent hermit in this country; and is one of the most elegant cities in the kingdom. It is the seat of the bishop of Ossory, which was translated from Agabo in Ossory, about the end of Henry II.'s reign, by Bishop O'Dullany. The city is pleasantly situated on the Neor, a navigable river that discharges itself into the harbour of Waterford. It is said of Kilkenny, that its air is without fog, its water without mud, its fire without smoke, and its streets paved with marble. The two latter are indeed matter of fact; for they have in the neighbourhood, a kind of coal that burns from first to last without smoke, and pretty much resembles the Welsh coal. Most of the streets also are paved with a stone called *black marble;* of which there are large quarries near the town. This stone takes a fine polish, and is beautifully intermixed with white granite. The air too is good and healthy, though not remarkably clearer than in many other parts of the kingdom. The city is governed by a mayor, recorder, aldermen, and sheriffs. It comprises two towns, viz. Kilkenny so called, and Irish town, each of which formerly sent two members to parliament, and both together contain 2870 houses, and 14,975 inhabitants. This city was once of great consequence, as may be seen by the venerable ruins yet remaining of churches, monasteries, and abbeys, which even now in their dilapidated state exhibit such specimens of exquisite taste in architecture as may vie with any modern improvements; and the remains of its gates, towers, and walls, show it to have been a place of great strength. Here too at different times parliaments were held, in which some remarkable statutes were passed. It has two churches, and several Catholic chapels; barracks for a troop of horse and four companies of foot: a market is held twice in the week, and there are seven fairs in the year.—Irish town is more properly called the borough of *St Canice*, vulgarly *Kenny;* the patronage of which is in the bishop of Ossory. The cathedral, which stands in a sequestered situation, is a venerable Gothic pile built about 500 years ago; and close to it is one of those remarkable round towers which have so much engaged the attention of travellers. The bishop's palace is a handsome building, and communicates by a covered passage with the church. The castle was first built in 1195, on the site of one destroyed by the Irish in 1173. The situation in a military view was most eligible: the ground was originally a conoid, the elliptical side abrupt and precipitous, with the river running rapidly at its base: here the natural rampart was faced with a wall of solid masonry 40 feet high; the other parts were defended by bastions, curtains, towers, and outworks; and on the summit the castle was erected. This place, as it now stands, was built by the ancestors of the dukes of Ormond: here the Ormond family resided; and it is now in the possession of Mr Butler, a descendant of that illustrious race. The college originally founded by the Ormond family is rebuilt in a style of elegance and convenience. The tholsel and market house are both good buildings: and over the latter is a suite of rooms, in which during the winter, and at races and assizes times, assemblies are held. There are two very fine bridges of cut marble over the Neor; John's bridge particularly is light and elegant. The Ormond family built and endowed a free school in this city. Here are the ruins of three old monasteries, called *St John's*, *St Francis's*, and the *Black abbey:* belonging to the latter are the remains of several old monuments, almost buried in the ruins; and the courts of the others are converted into barracks. The manufactures chiefly carried on here are, coarse woollen cloths, blankets of extraordinary fine quality, and considerable quantities of starch. In the neighbourhood also are made very beautiful chimney-pieces of that species of stone already mentioned, called *Kilkenny marble:* they are cut and polished by the power of water, a mill for that purpose being invented by a Mr Colles. The Kilkenny coal pits are within nine miles of the town. This city came by marriage into the ancient family of Le Despencer. It was incorporated by charter from King James I. in 1609. The market cross of Kilkenny continued an ornament to the city until 1771, when it was taken down; the date on it was MCCC. Sir James Ware mentions Bishop Cantwell's rebuilding the great bridge of Kilkenny, thrown down by an inundation about the year 1447. It appears also that St John's bridge

Kilkenny.

fell

Kilkenny ‖ Kilarney.

fell down by a great flood in 1564; and on 2d October 1763, by another like circumstance, Green's bridge near the cathedral fell.—The borough of St Canice, or Irish town, always enjoyed very ancient prescriptive rights. A close roll of 5 Edward III. A. D. 1376, forbids the magistrates of Kilkenny to obstruct the sale of victuals in the market of Irish town, or within the cross, under the pretence of custom for murage: and lest the ample grants made to Kilkenny might be interpreted so as to include Irish town, the corporation of the latter secured their ancient rights by letters-patent, 15 Edward IV. A. D. 1474. These renew their former privileges, and appoint a portrieve to be chosen every 21st September, and sworn into office on the 11th October. The portrieve's prison was at Troy-gate. Whenever the mayor of Kilkenny came within Water-gate, he dropt down the point of the city sword, to show he claimed no pre-eminence within the borough.

KILLALOE, a bishop's see in the county of Clare and province of Munster, in Ireland, 86 miles from Dublin, otherwise *Lounia*. It was anciently written *Kill-da-Lùa*, i. e. "the church of Lua," from *Lua* or *Molua*, who about the beginning of the 6th century founded an abbey near this place. St Molua appears to have derived his name from *Lounia*, the place of his residence, as was customary amongst the ancient Irish. On the death of St Molua, St Flannan his disciple, and son of the chief of the district, was consecrated bishop of this place at Rome about the year 639, and the church endowed with considerable estates by his father Theodorick. Towards the close of the 12th century, the ancient see of Roscrea was united to that of Killaloe; from which period these united bishoprics have been governed by the same bishops. At Killaloe is a bridge over the Shannon of 17 arches; and here is a considerable salmon and eel fishery. There are many ancient buildings in and about this town. The cathedral is a Gothic edifice in form of a cross, with the steeple in the centre, supported by four arches; it was built by Donald king of Limerick in 1160. There is a building near it, once the oratory of St Molua; and there is another of the same kind in an island of the Shannon, having marks of still higher antiquity. The see house of the bishop is at Clarisford, near to Killaloe. Adjoining to the cathedral are yet some remains of the mausoleum of Brien Boru.

KILLARNEY, a post town of Ireland in the county of Kerry and province of Munster, seated near a fine lake called *Loch Lean*, or lake of Killarney. It is distant 143 miles from Dublin, and has two fairs. Within a mile and a half of this place are the ruins of the cathedral of Aghadoe, an ancient bishopric united to Ardfert; and within four miles the ruins of Aglish church. At this town is the seat and gardens of Lord Kenmore.

The beautiful lake of Killarney is divided properly into three parts, called the *lower*, *middle*, and *upper* lake. The northern or lower lake is six miles in length and from three to four in breadth, and the town is situated on its northern shore. The country on this and the eastern boundary is rather of a tame character; but is here and there diversified with gentle swells, many of which afford delightful prospects of the lake, the islands, and surrounding scenery. The southern shore is composed of immense mountains, rising abruptly from the water, and covered with woods of the finest timber. From the centre of the lake the view of this range is astonishingly sublime, presenting to the eye an extent of forest six miles in length, and from half a mile to a mile and a half in breadth, hanging in a robe of rich luxuriance on the sides of two mountains, whose bare tops rising above the whole form a perfect contrast to the verdure of the lower region. On the side of one of these mountains is O'Sullivan's cascade, which falls into the lake with a roar that strikes the timid with awe on approaching it. The view of this sheet of water is uncommonly fine, appearing as if it were descending from an arch of wood, which overhangs it about 70 feet in height from the point of view. Coasting along this shore affords an almost endless entertainment, every change of position presenting a new scene; and rocks hollowed and worn into a variety of forms by the waves, and the trees and shrubs bursting from the pores of the sapless stone, forced to assume the most uncouth shapes to adapt themselves to their fantastic situations. The islands are not so numerous in this as in the upper lake; but there is one of uncommon beauty, viz. Innisfallen, nearly opposite to O'Sullivan's cascade: It contains 18 Irish acres. The coast is formed into a variety of bays and promontories, skirted and crowned with arbutus, holly, and other shrubs and trees; the interior parts are diversified with hills, and dales, and gentle declivities, on which every tree and shrub appears to advantage: the soil is rich even to exuberance; and trees of the largest size incline across the vales, forming natural arches, with ivy entwining in the branches, and hanging in festoons of foliage. The promontory of Mucruss, which divides the upper from the lower lake, is a perfect land of enchantment; there is a road carried through the centre of the promontory, which unfolds all the interior beauties of the place. Amongst the distant mountains, Turk appears an object of magnificence; and Mangerton's loftier, though less interesting summit, rears itself above the whole. The passage to the upper lake is round the extremity of Mucruss, which confines it on one side, and the approaching mountains on the other. Here is the celebrated rock called the *eagle's nest*, which produces wonderful echoes. A French horn sounded here, raises a concert superior to 100 instruments; and the report of a single cannon is answered by a succession of peals resembling the loudest thunder, which seems to travel the surrounding scenery, and die away among the distant mountains. The upper lake is four miles in length, and from two to three in breadth; and is almost surrounded by mountains, from which descend a number of beautiful cascades. The islands in this lake are numerous, and afford an amazing variety of picturesque views.—The centre lake, which communicates with the upper, is but small in comparison with the other two, and cannot boast of equal variety. The shores, however, are in many places indented with beautiful bays, surrounded with dark groves of trees, some of which have a most picturesque appearance when viewed from the water. The eastern boundary is formed by the base of Mangerton, down the steep side of which descends a cascade visible for 150 yards: this fall of water is supplied by a circular

Killarney.

lake

Killarney — Killicrankie.

lake near the summit of the mountain, called the *Devil's Punch Bowl;* which on account of its immense depth, and the continual overflow of water, is considered as one of the greatest curiosities in Killarney.—Mr Smith seems to think, that one of the best prospects this admired lake affords, is from a rising ground near the ruined cathedral of Aghadoe.

The lake of Killarney is otherwise called *Lough Lane*, or *Loch Lean*, from its being surrounded by high mountains. Nennius says, that these lakes were encompassed by four circles of mines; the first of tin, the second of lead, the third of iron, and the fourth of copper. In the several mountains adjacent to the lakes are still to be seen the vestiges of the ancient mines of iron, lead, and copper; but tin has not been discovered. Silver and gold are said by the Irish antiquaries to have been found in the early ages: but this is somewhat doubtful, especially in any considerable quantity, though some silver probably was extracted from the lead ore, and small quantities of gold might have been obtained from the yellow copper ore of Mucruss. However, in the neighbourhood of these lakes were found in the early ages, as well as at present, pebbles of several colours, which taking a beautiful polish, the ancient Irish wore in their ears, girdles, and different articles of their dress and furniture.

KILLAS, a genus of stones belonging to the argillaceous class, found chiefly in Cornwall in England. Its texture is either lamellar or coarsely granular; the specific gravity from 2630 to 2666. It contains 60 parts of siliceous earth, 25 of argillaceous, 9 of magnesia, and 6 of iron. The greenish kind contains more iron, and gives a green tincture to the nitrous acid.

KILLICRANKIE, a noted pass of Perthshire in Scotland. It is formed by the lofty mountains impending over the river Garie, which rushes through in a deep, darksome, and horrid channel, beneath. In the last century this was a pass of much danger and difficulty; a path hanging over a tremendous precipice threatened destruction to the least false step of the traveller: at present a fine road formed by the soldiery lent by government, and encouraged by an additional 6d. per day, gives an easy access to the remote Highlands; and the two sides are joined by a fine arch.

Near the north end of this pass, in its open and unimproved state, was fought in the year 1689 the battle of Killicrankie, between the adherents of James II. under Viscount Dundee, and of William III. under General Mackay. Dundee's army was very much inferior to that of Mackay. When he came in sight of the latter, he found them formed in eight battalions ready for action. They consisted of 4500 foot, and two troops of horse. The Highlanders under Dundee amounted to little more than half that number. These he ranged instantly in order of battle. Maclean, with his tribe, formed the right wing. The Macdonalds of Sky, under the chieftain's eldest son, formed the left. The Camerons, the Macdonalds of Glengary, the followers of Clanronald, and a few Irish auxiliaries, were in the centre. A troop of horse was placed behind under Sir William Wallace. The officers sent by James from Ireland were distributed through all the line. This whole army stood in sight of the enemy for several hours on the steep side of a hill, which faced the narrow plain where Mackay had formed his line. Dundee wished for the approach of night; a season suited for either victory or flight. Killicrankie, Killigrew.

At five of the clock in the afternoon, a kind of slight skirmish began between the right wing of the Highlanders and the left of the enemy. But neither army wishing to change their ground, the firing was discontinued for three hours. Dundee in the mean time flew from tribe to tribe, and animated them to action. At eight of the clock he gave the signal for battle, and charged the enemy in person at the head of the horse. The Highlanders in deep columns rushed suddenly down the hill. They kept their shot till they were within a pike's length of the enemy; and having fired their muskets, fell upon them sword in hand. Mackay's left wing could not for a moment sustain the shock. They were driven by the Macleans with great slaughter from the field. The Macdonalds on the left of the Highlanders, were not equally successful. Colonel Hastings's regiment of foot stood their ground. They even forced the Macdonalds to retreat. Maclean, with a few of his tribe, and Sir Evan Cameron at the head of his clan, fell suddenly on the flank of this gallant regiment, and forced them to give way. The slaughter ended not with the battle. Two thousand fell in the field and the flight. The tents, baggage, artillery, and provisions of the enemy, and even King William's Dutch standard, which was carried by Mackay's regiment, fell into the hands of the Highlanders. The victory was now complete. But the Highlanders lost their gallant leader. Perceiving the unexpected resistance of Colonel Hastings's regiment, and the confusion of the Macdonalds, Dundee rode rapidly to the left wing. As he was raising his arm, and pointing to the Camerons to advance, he received a ball in his side. The wound proved mortal; and with Dundee fell all the hopes of King James at that time.

KILLIGREW, WILLIAM, eldest son of Sir Robert Killigrew, knight, was born in 1605. He was gentleman-usher of the privy-chamber to King Charles I.; and on the Restoration of Charles II. when the latter married the Princess Catharine of Portugal, he was created vice-chamberlain; in which station he continued 22 years, and died in 1693. He was the author of four plays, which, though now thrown aside, were much applauded by the poets of that time, particularly by Waller.

KILLIGREW, *Thomas*, brother of the former, was born in 1611; and was much distinguished in his time for wit. He was page of honour to King Charles I. and groom of the bedchamber to Charles II. with whom he suffered many years exile; during which he applied his leisure hours to the study of poetry, and to the composition of several plays. After the Restoration he continued in high favour with the king, and had frequently access to him when he was denied to the first peers in the realm; and being a man of great wit and liveliness of parts, and having from his long intimacy with that monarch, and being continually about his person during his troubles, acquired a freedom and familiarity with him, which even the pomp of majesty afterwards could not check in him; he sometimes, by way of jest,

which

Killigrew. which King Charles was ever fond of, if genuine, even though himself was the object of the satire, would adventure bold truths which scarcely any one besides would have dared even to hint at. One story in particular is related of him, which if true is a strong proof of the great lengths he would sometimes proceed in his freedoms of this kind, which is as follows:—When the king's unbounded passion for women had given his mistress such an ascendant over him, that, like the effeminate Persian monarch, he was much fitter to have handled a distaff than to wield a sceptre, and for the conversation of his concubines utterly neglected the most important affairs of state, Mr Killigrew went to pay his majesty a visit in his private apartments, habited like a pilgrim who was bent on a long journey. The king, surprised at the oddity of his appearance, immediately asked him what was the meaning of it, and whither he was going? "To hell," bluntly replied the wag. "Prithee (said the king), what can your errand be to that place?" To fetch back Oliver Cromwell (rejoined he), that he may take some care of the affairs of England, for his successor takes none at all.—One more story is related of him, which is not barren of humour. King Charles's fondness for pleasure, to which he almost always made business give way, used frequently to delay affairs of consequence, from his majesty's disappointing the council of his presence when met for the dispatch of business, which neglect gave great disgust and offence to many of those who were treated with this seeming disrespect. On one of these occasions the duke of Lauderdale, who was naturally impetuous and turbulent, quitted the council chamber in a violent passion; and meeting Mr Killigrew presently after, expressed himself on the occasion in very disrespectful terms of his majesty. Killigrew begged his grace to moderate his passion, and offered to lay him a wager of 100l. that he himself would prevail on his majesty to come to council in half an hour. The duke, surprised at the boldness of the assertion, and warmed by his resentment against the king, accepted the wager; on which Killigrew immediately went to the king, and without ceremony told him what had happened; adding these words, "I know that your majesty hates Lauderdale, though the necessity of your affairs compels you to carry an outward appearance of civility: now, if you choose to get rid of a man who is thus disagreeable to you, you need only go this once to council; for I know his covetous disposition so perfectly, that I am well persuaded, rather than pay this 100l. he would hang himself out of the way, and never plague you more." The king was so pleased with the archness of this observation, that he immediately replied, "Well then, Killigrew, I positively will go;" and kept his word accordingly.—Killigrew died in 1682, and was buried in Westminster abbey.

KILLIGREW, *Anne*, "a Grace for beauty, and a Muse for wit," as Mr Wood says, was the daughter of Dr Henry Killigrew, brother of the two foregoing, and was born a little before the Restoration. She gave early indications of genius, and became eminent in the arts both of poetry and painting. She drew the duke of York and his duchess to whom she was maid of honour, as well as several other portraits and history pieces; and crowned all her other accomplishments with unblemished virtue and exemplary piety. Killigrew Killough. Mr Dryden seems quite lavish in her praise, though Wood assures us he has said no more of her than she was equal if not superior to. This amiable young woman died of the smallpox in 1685; and the year after her poems were published in a thin quarto volume.

KILLILEAGH, a town of Ireland, in the county of Down and province of Ulster, 80 miles from Dublin; otherwise written *Killyleagh*. It is the principal town in the barony of Duffrin; and seated on an arm of the lake of Strangford, from which it is supplied with a great variety of fish. The family of the Hamiltons created first Lords Clanbois, and afterwards earls of Clanbrassil, had their seat and residence here in a castle standing at the upper end of the great street. At the lower end of the street is a little safe bay, where ships lie sheltered from all winds; in the town are some good houses, a decent market-house, a horse barrack, and a Presbyterian meeting-house. On an eminence a small distance from the town is a handsome church built in the form of a cross. This place suffered much in the calamitous year 1641. It is now thriving, and the linen manufacture carried on in it, and fine thread made, for which it has a great demand. It formerly returned two members to parliament. The celebrated naturalist and eminent physician Sir Hans Sloane was born here 16th April 1660, and his father Alexander Sloane was at the head of that colony of Scots which King James I. settled in the place. This town was incorporated by that king at the instance of the first earl of Clanbois.

KILLOUGH (otherwise PORT ST ARNE), a port town of Ireland, situated in the county of Down and province of Ulster, 76 miles from Dublin. It lies north of St John's Point, and has a good quay, where ships lie very safe. The town is agreeably situated; the sea flowing all along the backs of the houses, where ships ride in full view of the inhabitants. There is here a good church, and a horse barrack. They have good fishing in the bay; but the principal trade of the place consists in the exportation of barley, and the importation of such commodities as are consumed in the adjacent country. A manufacture of salt is also carried on with great advantage. The fairs held here are five. At a small distance from the town is a charter working school for the reception of 20 children, which was set on foot by the late Mr Justice Ward. There is a remarkable well here called *St Scordin's well*, and highly esteemed for the extraordinary lightness of its water. It gushes out of a high rocky bank, close upon the shore, and is observed never to diminish its quantity in the driest season. There is also a mineral spring near the school, the waters of which the inhabitants affirm to be both purgative and emetic. At a small distance from the town near the sea is a rock in which there is an oblong hole, from whence at the ebbing and flowing of the tide a strange noise is heard somewhat resembling the sound of a huntsman's horn. In an open field about a quarter of a mile from the town towards St John's Point there is a very curious cave, which has a winding passage two feet and a half broad, with three doors in it besides the entrance, and leading to a circular chamber three yards in diameter, where there is a fine limpid well. The cave is about 27 yards long.

Killough Harbour ‖ Kilmallock.

KILLOUGH Harbour is tolerably safe and commodious; a small degree of caution, however, is necessary in sailing into it; for a rock stands in the middle of the entrance, covered at half flood, commonly called the *water rock*. Either to the east or west of this rock is a secure passage, the inlet lying south by east and north by west. On the west side of the rock open to Coney island is a strong quay, and a bason for ships, where they are defended from all winds, within which the harbour on both sides affords good anchorage for vessels of 150 tons. At the end of the quay the channel is 400 yards wide. The bay of Killough is formed by Rin-fad and the Long point to the east, and St John's point to the west, as the inner harbour is by a peninsula called *Coney isle* from the number of rabbits thereon, and not *Cane isle* as Sir William Petty supposes. An impetuous sea runs on all this coast in storms and spring tides.

KILLYBEGS, a borough and fair town in the county of Donegal and province of Ulster, 123 miles from Dublin. It is situated on the north side of Donegal bay; but is a place of no great trade, though it has a harbour spacious enough to contain a large fleet: it has a bold and ample opening to the sea on the south, and is secured within by the shelter of high lands surrounding it; so that vessels may enter at any time of the tide, there being from five to eight fathoms water. The herring fishery is the most considerable of any carried on here; but the town is likely to increase in trade and consequence.

KILMAINHAM, a town of Ireland, situated about half a mile from Dublin. It has a session house and handsome gaol; and here the quarter sessions are held for the county of Dublin, and knights of the shire elected for that county. This place was sometimes the seat of government before Dublin castle was converted to that purpose; and though now much decayed, it gives title of baron to the family of Wenman. An ancient priory was founded here, and a house for knights hospitalers of St John of Jerusalem.

KILMALLOCK, a town of Ireland, in the county of Limerick and province of Munster, 16 miles from the city of Limerick, and 107 from Dublin.—This town makes a conspicuous figure in the military history of Ireland. In the 16th century it was a populous place; and the remains of the wall which entirely surrounded the town, and of several large houses, are still to be seen. Edward VI. granted a charter to it with many privileges, as did Queen Elizabeth another, dated 24th April 1584. In 1598, it was invested by the Irish forces, when the earl of Ormond hastened to its relief, and arrived in time to raise the siege: here was also some contest during the grand rebellion in 1641 and 1642. By an inquisition 11 Aug. 29 Eliz. it appears that there had been an abbey in Kilmallock called *Flascispague;* on which a stone house was erected. In the cathedral church are the remains of a monument erected over the Verdon family, one of whom represented this town in parliament in 1613. This place once gave title of viscount to one of the Sarsfield family. Sir James Ware informs us, that an abbey of Dominicans or Black friars was built here in the 13th century by the sovereign, brethren, and commonalty. From the many ruins here of castles and ancient buildings, it has acquired the name of the *Irish Balbeck*. The parish church was formerly an abbey for regular canons founded by St Mochoallog, who died between the years 639 and 656; and some writers say, that the Dominican abbey just mentioned was founded in 1291, by Gilbert the second son of John of Calleen.

Kilmallock ‖ Kimchi.

KILMARNOCK, a populous and flourishing town of Ayrshire in Scotland, noted for its manufacture of carpets, milled hosiery, and Scotch bonnets. It gave the title of earl to the noble family of Boyd, residing in this neighbourhood. This title was forfeited by the last earl, who, by engaging in the rebellion of 1745, was deprived of his honours, and lost his life on the scaffold. His son, however, who served in the king's army, afterwards succeeded to the earldom of Errol. The population in 1811 was 10,148.

KILMORE, a bishop's see in the county of Cavan and province of Ulster in Ireland. It was called in former ages *Clunes*, or *Clunis*, i. e. the "sequestered place;" and is situated near Lough Earn. St Fedlimid founded this bishopric in the sixth century; it was afterwards removed to an obscure village called *Triburna;* where it continued until the year 1454, when Andrew Macbrady bishop of Triburna erected a church on the site of that founded by Fedlimid, to whose memory it was dedicated, and denominated *Kilmore*, or "the great church." At present there is neither cathedral, chapter, nor canons, belonging to this see; the small parish church contiguous to the episcopal house serving the purpose of a cathedral.

KILN, a stove used in the manufacture of various articles. A fabric formed for admitting heat, in order to dry or burn materials placed in it to undergo such operations.

KILWORTH, a town of Ireland, situated in the county of Cork and province of Munster, 108 miles from Dublin. It is a thriving place, with a good church, at the foot of a large ridge of mountains called *Kilworth mountains*, through which a good turnpike road is carried from Dublin to Cork: below the town runs the river Funcheon, which is well stored with salmon and trout, and discharges itself a mile south of this into the Blackwater. Near Kilworth is a good glebe and vicarage house. At this place is Moorpark, the superb seat of Lord Mountcashel; and adjoining to his lordship's improvements stands the castle of Clough-leagh, boldly situated on the river Funcheon, which has stood several sieges.

KIMBOLTON, a town of Huntingdonshire, seated in a bottom; and noted for the castle of Kimbolton, the seat of the duke of Manchester. W. Long. 0. 15. N. Lat. 52. 18.

KIMCHI, DAVID, a Jewish rabbi, famous as a commentator on the Old Testament, lived at the close of the 12th and beginning of the 13th centuries. He was a Spaniard by birth, son of Rabbi Joseph Kimchi, and brother of Rabbi Moses Kimchi, both men of eminent learning among the Jews: but he exceeded them both, being the best Hebrew grammarian the Jews ever had. He wrote a Grammar and Dictionary of that language; out of the former of which Buxtorf made his *Thesaurus Linguæ Hebreæ*, and his *Lexicon Linguæ Hebreæ* out of the latter. His writings have been held in such estimation among the Jews, that no one can

Kimchi || Kincardineshire.

arrive at any reputation in letters and theology without studying them.

KINCARDINE, a town in Perthshire, situated upon the banks of the Forth, four miles east from Alloa, and 22 south from Perth. The houses are well built, and the streets regular, with a dry and healthy situation. The harbour is commodious, with an excellent roadstead opposite to the town, where 100 vessels of all dimensions may ride in perfect safety. Shipbuilding is extensively carried on at this place, and nine or ten have sometimes been upon the stocks at once, some of them 200 and 300 tons burden. In 1792 there were 75 vessels belonging to the town, furnishing employment for 300 sailors. These import wood, iron, flax, &c. from the Baltic, barley from England and other places; and export coals to different parts of Europe. It contained 2419 inhabitants in 1811.

KINCARDINESHIRE, or MEARNS-SHIRE, a county of Scotland, bounded on the north by Aberdeenshire, on the east by the German ocean, and on the south-west by Angus or Forfarshire. In form it resembles a harp, having the lower point towards the south. Its length along the coast is about 30 miles; its greatest breadth about 20. Various opinions have been held concerning the derivation of the word *Mearns;* but the other name is taken from its ancient capital, *Kincardine*, now an inconsiderable village. The tract of country through which the Dee passes, and the plain along the sea coast, are well cultivated, and produce much corn and flax. The fields are in many places skreened by woods; and the heaths afford sheep walks and much good pasture for cattle. But the most extensive tract under cultivation, is what is called the *how* or *hollow* of the Mearns. This tract forms part of Strathmore, or the great vale which runs from Stonehaven in the north-east to Argyleshire in the south-west, nearly across the kingdom. Near Stonehaven, to the south, are the ruins of Dunnotar castle, the ancient seat of the earl marischal of Scotland, situated on a high perpendicular rock, almost surrounded by the sea. In this neighbourhood is a precipitous cliff overhanging the sea, called *Fowls Heugh;* noted as the resort of kittiwakes, the young of which are much sought after in the hatching season, being esteemed a great delicacy.—At a little distance from Stonehaven, up the river, stands Urie, the birth-place of Barclay the famous apologist for the Quakers. The Quakers have here a burying-ground; and in the vicinity are seen the traces of a Roman station. There are other fine mansion houses in this county, as *Burn*, the seat of the late Lord Adam Gordon; *Arbuthnot*, the seat of Viscount Arbuthnot; *Criggie*, *Benholm Castle*, &c.—The village of Fordun, a little south from the centre of the county, is supposed to be the birth-place of the celebrated author of the Scotichronicon. In the churchyard of Fordun is shewn what is said to be the tomb of St Palladius, a small plain building, which from its appearance is comparatively of a modern date. Near the village, and along the river Bervie, the country is flat and well cultivated. The small town of INVERBERVIE was made a royal borough by David Bruce, who landed with his queen at Craig David near this after his long retreat into France. Near the village of *Fettercairn* are still seen some vestiges of a castle said to have been the residence of Finella, daughter of a nobleman of large possessions in this county, or, as Major calls her, *Countess of Angus*, who was accessory to the murder of Kenneth II. About two miles from this place, on the road side, is a cairn of a stupendous size and uncommon form, which probably might give name to the parish. About six miles west from Bervie, is situated *Laurencekirk*, which, formerly an insignificant village, by the judicious and liberal exertions of Lord Gardenstone, has become a handsome little town, with a right to elect magistrates, and to hold an annual fair and a weekly market. He established here manufactures of lawn, cambric, linen, and various other articles. He has also freely renounced all the oppressive services due by his tenants; services which have been so long and so justly complained of as a check to agriculture in many parts of Scotland.—The north-west part of the shire, being mountainous, is more employed in pasture than in cultivation. The principal mountains are Montbattock, and Cloch-na-bean: the former is the highest in the county; the latter is remarkable, as the name imports, for a huge detached rock near its summit. The population of this county, according to its parishes, is the following.

Kincardineshire || King.

	Parishes.	Population in 1755.	Population in 1790—1798.
1	Arbuthnot	997	1041
	Banchory Devenich	1495	1700
	Banchory Ternan	1736	1340
	Benholm	1367	1557
5	Bervie	655	1200
	Conveth	757	1200
	Dunnotar	1570	1962
	Durris	889	651
	Fettercairn	1950	2000
10	Fetteressoe	3082	3370
	Fordun	1890	2258
	Garvock	755	460
	Glenbervie	958	1307
	Kinneff	858	1000
15	Maryculter	746	719
	Marykirk	1285	1481
	Nigg	1289	1090
	St Cyrus	1271	1763
19	Strachan	796	700
		24,346	26,799
	Population in 1811,	27,439	

Statist. Hist.

See KINCARDINESHIRE, SUPPLEMENT.

KINDRED, in *Law*, persons related to one another, whereof the law reckons three degrees or lines, viz. the descending, ascending, and collateral line. See CONSANGUINITY and DESCENT.

On their being no kindred in the descending line, the inheritance passes in the collateral one.

KING, a monarch or potentate who rules singly and sovereignly over a people.—Camden derives the word from the Saxon *cyning*, which signifies the same; and that from *can*, "power," or *ken*, "knowledge," wherewith every monarch is supposed to be invested. The Latin *rex*, the Scythian *reix*, the Punic *resch*, the Spanish *rey*, and French *roy*, come all, according to Postel, from the Hebrew ראש, *rosch*, "chief, head."

Kings were not known among the Israelites till the

King. the reign of Saul. Before him they were governed at first by elders as in Egypt; then by princes of God's appointment, as Moses and Joshua; then by judges till the time of Samuel; and last of all by kings. See JUDGES.

Most of the Grecian states were governed at first by kings, who were chosen by the people to decide differences and execute a power which was limited by laws. They commanded armies, presided over the worship of the gods, &c. This royalty was generally hereditary; but if the vices of the heir to the crown were odious to the people, or if the oracle had so commanded, he was cut off from the right of succession; yet the kings were supposed to hold their sovereignty by the appointment of Jupiter. The ensign of majesty was the sceptre, which was made of wood adorned with studs of gold, and ornamented at the top with some figure; commonly that of an eagle, as being the bird of Jove.

Rome also was governed at first by kings, who were elected by the people, with the approbation of the senate and concurrence of the augurs. Their power extended to religion, the revenues, the army, and the administration of justice. The monarchical form of government subsisted 244 years in Rome, under seven kings, the last of whom was Tarquinius Superbus. See ROME.

Among the Greeks the king of Persia had anciently the appellation of the *great king*; the king of France now has that of the *most Christian king*; and the king of Spain has that of *Catholic king*. The king of the Romans is a prince chosen by the emperor, as a coadjutor in the government of the empire.

The kings of England, by the Lateran council, under Pope Julius II. had the title of *Christianissimus* conferred on them; and that of *defender of the faith* was added by Pope Leo X. though it had been used by them some time before. The title of *grace* was first given to our kings about the time of Henry IV. and that of *majesty* first to Henry VIII. before which time our kings were called *grace*, *highness*, &c.—In all public instruments and letters, the king styles himself *nos*, "we;" though till the time of King John he spoke in the singular number.

The definition of *king* above given, is according to the general acceptation of the term. It will not therefore strictly apply to the sovereign of Britain; and still less of late to that of France, formerly one of the most absolute, now the most degraded, of princes, without power and without consequence. In Britain, a happy mean prevails. The power of the king is indeed subject to great limitations: but they are the limitations of wisdom, and the sources of dignity; being so far from diminishing his honour, that they add a glory to his crown: For while other kings are absolute monarchs over innumerable multitudes of slaves, the king of Britain has the distinguished glory of governing a free people, the least of whom is protected by the laws: he has great prerogatives, and a boundless power in doing good; and is at the same time only restrained from acting inconsistently with his own happiness, and that of his people.

To understand the royal rights and authority in Britain, we must consider the king under six distinct views. 1. With regard to his title. 2. His royal family. 3. His councils. 4. His duties. 5. His prerogative. 6. His revenue. King.

I. His title. For this, see *HEREDITARY Right*, and SUCCESSION.

II. His royal family. See *ROYAL Family*.

III. His councils. See COUNCIL.

IV. His duties. By our constitution, there are certain duties incumbent on the king; in consideration of which, his dignity and prerogative are established by the laws of the land: it being a maxim in the law, that protection and subjection are reciprocal. And these reciprocal duties are what Sir William Blackstone apprehends were meant by the convention in 1688, when they declared that King James had broken the original contract between king and people. But, however, as the terms of that original contract were in some measure disputed, being alleged to exist principally in theory, and to be only deducible by reason and the rules of natural law, in which deduction different understandings might very considerably differ; it was, after the Revolution, judged proper to declare these duties expressly, and to reduce that contract to a plain certainty. So that, whatever doubts might be formerly raised by weak and scrupulous minds about the existence of such an original contract, they must now entirely cease; especially with regard to every prince who hath reigned since the year 1688.

The principal duty of the king is, To govern his people according to law. *Nec regibus infinita aut libera potestas*, was the constitution of our German ancestors on the continent. And this is not only consonant to the principles of nature, of liberty, of reason, and of society; but has always been esteemed an express part of the common law of England, even when prerogative was at the highest. "The king (saith Bracton, who wrote under Henry III.) ought not to be subject to man; but to God, and to the law: for the law maketh the king. Let the king therefore render to the law, what the law has invested in him with regard to others; dominion, and power: for he is not truly king, where will and pleasure rules, and not the law." And again: "The king hath a superior, namely God; and also the law, by which he was made a king." Thus Bracton; and Fortescue also, having first well distinguished between a monarchy absolutely and despotically regal, which is introduced by conquest and violence, and a political or civil monarchy, which arises from mutual consent (of which last species he asserts the government of England to be), immediately lays it down as a principle, that "the king of England must rule his people according to the decrees of the laws thereof; insomuch that he is bound by an oath at his coronation to the observance and keeping of his own laws." But to obviate all doubts and difficulties concerning this matter, it is expressly declared by statute 12 and 13 W. III. c. 2. "that the laws of England are the birthright of the people thereof; and all the kings and queens who shall ascend the throne of this realm ought to administer the government of the same according to the said laws, and all their officers and ministers ought to serve them respectively according to the same: and therefore all the other laws and statutes of this realm, for securing the established religion, and the rights and liberties of the people thereof, and all other laws and statutes of the same now in force, are by his majesty, by and with

King. the advice and consent of the lords spiritual and temporal, and commons, and by authority of the same, ratified and confirmed accordingly."

And as to the terms of the original contract between king and people, these, it is apprehended, are now couched in the coronation oath, which by the statute 1 W. and M. stat. 1. c. 6. is to be administered to every king and queen who shall succeed to the imperial crown of these realms, by one of the archbishops or bishops of the realm, in the presence of all the people; who on their parts do reciprocally take the oath of allegiance to the crown. This coronation oath is conceived in the following terms:

"*The archbishop or bishop shall say*, Will you solemnly promise and swear to govern the people of this kingdom of Britain, and the dominions thereto belonging, according to the statutes in parliament agreed, and the laws and customs of the same?—*The king or queen shall say*, I solemnly promise so to do.

"*Archbishop or bishop.* Will you to your power cause law and justice, in mercy, to be executed in all your judgments?—*King or queen.* I will.

"*Archbishop or bishop.* Will you to the utmost of your power maintain the laws of God, the true profession of the gospel, and the Protestant reformed religion established by the law? And will you preserve unto the bishops and clergy of this realm, and to the churches committed to their charge, all such rights and privileges as by law do or shall appertain unto them, or any of them? *King or queen.* All this I promise to do.

"*After this the king or queen, laying his or her hand upon the holy gospel, shall say*, The things which I have here before promised, I will perform and keep: so help me God. *And then shall kiss the book.*"

This is the form of the coronation oath, as it is now prescribed by our law; the principal articles of which appear to be at least as ancient as the Mirror of Justices, and even as the time of Bracton: but the wording of it was changed at the Revolution, because (as the statute alleges) the oath itself had been framed in doubtful words and expressions, with relation to ancient laws and constitutions at this time unknown. However, in what form soever it be conceived, this is most indisputably a fundamental and original express contract; though, doubtless, the duty of protection is impliedly as much incumbent on the sovereign before coronation as after: in the same manner as allegiance to the king becomes the duty of the subject immediately on the descent of the crown, before he has taken the oath of allegiance, or whether he ever takes it at all. This reciprocal duty of the subject will be considered in its proper place. At present we are only to observe, that in the king's part of this original contract are expressed all the duties which a monarch can owe to his people, viz. to govern according to law; to execute judgment in mercy; and to maintain the established religion. And with respect to the latter of these three branches, we may farther remark, that by the act of union, 5 Ann. c. 8. two preceding statutes are recited and confirmed; the one of the parliament of Scotland, the other of the parliament of England: which enact; the former, that every king at his accession shall take and subscribe an oath, to preserve the Protestant religion, and Presbyterian church-government in Scotland; King. the latter, that at his coronation he shall take and subscribe a similar oath, to preserve the settlement of the church of England, within England, Ireland, Wales, and Berwick, and the territories thereunto belonging.

V. His prerogative. See PREROGATIVE.

VI. His revenue. See REVENUE.

Having in the preceding articles chalked out all the principal outlines of this vast title of the law, the supreme executive magistrate, or the king's majesty, considered in his several capacities and points of view; it may not be improper to take a short comparative review of the power of the executive magistrate, or prerogative of the crown, as it stood in former days, and as it stands at present. And we cannot but observe, that most of the laws for ascertaining, limiting, and restraining this prerogative, have been made within the compass of little more than a century past; from the petition of right in 3 Car. I. to the present time. So that the powers of the crown are now to all appearance greatly curtailed and diminished since the reign of King James I. particularly by the abolition of the star-chamber and high-commission courts in the reign of Charles I. and by the disclaiming of martial law, and the power of levying taxes on the subject, by the same prince: by the disuse of forest laws for a century past: and by the many excellent provisions enacted under Charles II.; especially the abolition of military tenures, purveyance, and pre-emption; the *habeas corpus* act; and the act to prevent the discontinuance of parliaments for above three years; and since the Revolution, by the strong and emphatical words in which our liberties are asserted in the bill of rights, and act of settlement; by the act for triennial, since turned into septennial elections; by the exclusion of certain officers from the house of commons; by rendering the seats of the judges permanent, and their salaries independent; and by restraining the king's pardon from obstructing parliamentary impeachments. Besides all this, if we consider how the crown is impoverished and stripped of all its ancient revenues, so that it greatly depends on the liberality of parliament for its necessary support and maintenance, we may perhaps be led to think that the balance is inclined pretty strongly to the popular scale, and that the executive magistrate has neither independence nor power enough left, to form that check upon the lords and commons which the founders of our constitution intended.

But, on the other hand, it is to be considered, that every prince, in the first parliament after his accession, has by long usage a truly royal addition to his hereditary revenue settled upon him for his life; and has never any occasion to apply to parliament for supplies, but upon some public necessity of the whole realm. This restores to him that constitutional independence, which at his first accession seems, it must be owned, to be wanting. And then with regard to power, we may find perhaps that the hands of government are at least sufficiently strengthened; and that a British monarch is now in no danger of being overborne by either the nobility or the people. The instruments of power are not perhaps so open and avowed as they formerly were, and therefore are the less liable to jealous and invidious reflections; but they are not the weaker

King. upon that account. In short, our national debt and taxes (besides the inconveniences before mentioned) have also in their natural consequences thrown such a weight of power into the executive scale of government, as we cannot think was intended by our patriot ancestors; who gloriously struggled for the abolition of the then formidable parts of the prerogative, and by an unaccountable want of foresight established this system in their stead. The entire collection and management of so vast a revenue, being placed in the hands of the crown, have given rise to such a number of new officers, created by and removable at the royal pleasure, that they have extended the influence of government to every corner of the nation. Witness the commissioners and the multitude of dependents on the customs, in every port of the kingdom; the commissioners of excise, and their numerous subalterns, in every inland district; the postmasters and their servants planted in every town and upon every public road; the commissioners of the stamps, and their distributors, which are fully as scattered and fully as numerous; the officers of the salt duty, which, though a species of excise, and conducted in the same manner, are yet made a distinct corps from the ordinary managers of that revenue; the surveyors of houses and windows; the receivers of the land tax; the managers of lotteries; and the commissioners of hackney coaches; all which are either mediately or immediately appointed by the crown, and removable at pleasure without any reason assigned: these, it requires but little penetration to see, must give that power on which they depend for subsistence, an influence most amazingly extensive. To this may be added the frequent opportunities of conferring particular obligations, by preference in loans, subscriptions, tickets, remittances, and other money transactions, which will greatly increase this influence; and that over those persons whose attachment on account of their wealth, is frequently the most desirable. All this is the natural, though perhaps the unforeseen, consequence of erecting our funds of credit, and, to support them, establishing our perpetual taxes: the whole of which is entirely new since the Restoration in 1660; and by far the greatest part since the Revolution in 1688. And the same may be said with regard to the officers in our numerous army, and the places which the army has created. All which put together give the executive power so persuasive an energy with respect to the persons themselves, and so prevailing an interest with their friends and families, as will amply make amends for the loss of external prerogative.

But though this profusion of offices should have no effect on individuals, there is still another newly acquired branch of power; and that is, not the influence only, but the force of a disciplined army; paid indeed ultimately by the people, but immediately by the crown; raised by the crown, officered by the crown, commanded by the crown. They are kept on foot, it is true, only from year to year, and that by the power of parliament: but during that year they must, by the nature of our constitution, if raised at all, be at the absolute disposal of the crown. And there need but few words to demonstrate how great a trust is thereby reposed in the prince by his people: A trust that is more than equivalent to a thousand little troublesome prerogatives.

Add to all this, that besides the civil list, the immense revenue of almost seven millions sterling, which is annually paid to the creditors of the public, or carried to the sinking fund, is first deposited in the royal exchequer, and thence issued out to the respective offices of payment. This revenue the people can never refuse to raise, because it is made perpetual by act of parliament; which also, when well considered, will appear to be a trust of great delicacy and high importance. King.

Upon the whole, therefore, it seems clear, that whatever may have become of the *nominal*, the real power of the crown has not been too far weakened by any transactions in the last century. Much is indeed given up; but much is also acquired. The stern commands of prerogative have yielded to the milder voice of influence: the slavish and exploded doctrine of non-resistance has given way to a military establishment by law; and to the disuse of parliaments has succeeded a parliamentary trust of an immense perpetual revenue. When, indeed, by the free operation of the sinking fund, our national debts shall be lessened; when the posture of foreign affairs, and the universal introduction of a well planned and national militia, will suffer our formidable army to be thinned and regulated; and when (in consequence of all) our taxes shall be gradually reduced; this adventitious power of the crown will slowly and imperceptibly diminish, as it slowly and imperceptibly rose. But till that shall happen, it will be our especial duty, as good subjects and good Englishmen, to reverence the crown, and yet guard against corrupt and servile influences from those who are intrusted with its authority; to be loyal yet free; obedient, and yet independent; and, above every thing, to hope that we may long, very long, continue to be governed by a sovereign, who, in all those public acts that have personally proceeded from himself, hath manifested the highest veneration for the free constitution of Britain, hath already in more than one instance remarkably strengthened its outworks; and will therefore never harbour a thought or adopt a persuasion, in any the remotest degree detrimental to public liberty.

King at Arms, or *of Arms*, is an officer of great antiquity, and anciently of great authority, whose business is to direct the heralds, preside at their chapters, and have the jurisdiction of armoury.

In England there are three kings of arms, viz. garter, clarencieux, and norroy.

Garter, principal King of Arms, was instituted by Henry V. His business is to attend the knights of the Garter at their assemblies, to marshal the solemnities at the funerals of the highest nobility, and to carry the garter to kings and princes beyond the sea; on which occasion he used to be joined in commission with some principal peer of the kingdom. See GARTER.

Clarencieux King at Arms, is so called from the duke of Clarence, to whom he first belonged. His office is to marshal and dispose the funerals of all the inferior nobility, as baronets, knights, esquires, and gentlemen, on the south side of the Trent. See CLARENCIEUX.

Norroy King at Arms, is to do the same on the north side of the river Trent.

These two last are also called *provincial heralds*, in regard

King. regard they divide the kingdom between them into provinces. By charter, they have power to visit noblemen's families, to set down their pedigrees, distinguish their arms, appoint persons their arms, and with Garter to direct the other heralds.

Anciently the kings at arms were created and solemnly crowned by the kings of England themselves; but in later times the earl marshal has a special commission at every creation to personate the king.

Lyon KING *at Arms*, for Scotland, is the second king at arms for Great Britain; he is invested and crowned with great solemnity. To him belong the publishing king's proclamations, marshalling funerals, reversing arms, &c. See LYON.

KING, *Dr John*, a learned English bishop in the 17th century, was educated at Westminster school, and at Oxford, and was appointed chaplain to Queen Elizabeth. In 1605 he was made dean of Christ church, was for several years vice-chancellor of Oxford, and in 1611 he was advanced to the bishopric of London. Besides his *Lectures upon Jonah*, delivered at York, he published several sermons. King James I. used to style him *the king of preachers;* and Lord Chief Justice Coke often declared, that *he was the best speaker in the Star-chamber in his time*. He was so constant in preaching after he was a bishop, that, unless he was prevented by want of health, he omitted no Sunday in visiting some pulpit in or near London. Soon after his death, it was reported, that he died a member of the Romish church. But the falsity of this story was sufficiently exposed by his son Dr Henry King, who was bishop of Chichester, in a sermon at St Paul's cross soon after; by Bishop Godwin in the *Appendix* to his *Commentarius de præsulibus Angliæ*, printed in 1622; and by Mr John Gee, in his book, entitled, *The Foot out of the Snare*.

KING, *Dr William*, a facetious English writer in the beginning of the 18th century, was allied to the noble families of Clarendon and Rochester. He was elected a student of Christ church from Westminster school in 1681, aged 18. He afterward entered upon the study of law, and took the degree of doctor of civil law, soon acquired a considerable reputation as a civilian, and was in great practice. He attended the earl of Pembroke, lord lieutenant of Ireland, into that kingdom, where he was appointed judge advocate, sole commissioner of the prizes, keeper of the records, vicar general to the lord primate of Ireland; was countenanced by persons of the highest rank, and might have made a fortune. But so far was he from heaping up riches, that he returned to England with no other treasure than a few merry poems and humorous essays, and returned to his student's place at Christ church. He died on Christmas day in 1712, and was interred in the cloisters of Westminster abbey. His writings are pretty numerous. The principal are, 1. Animadversions on a pretended Account of Denmark, wrote by Mr Molesworth, afterwards Lord Molesworth. The writing of these procured Dr King the place of secretary to Princess Anne of Denmark. 2. Dialogues of the dead. 3. The art of love, in imitation of Ovid *De arte amandi*. 4. A volume of poems. 5. Useful transactions. 6. An historical account of the heathen gods and heroes. 7. Several translations.

KING, *Dr William*, archbishop of Dublin in the 18th century, was descended from an ancient family in the north of Scotland, but born in the county of Antrim in the north of Ireland. In 1674 he took priests orders, and in 1679 was promoted by his patron, Dr Parker, archbishop of Dublin, to the chancellorship of St Patrick. In 1687 Peter Manby, dean of Londonderry, having published at London, in 4to, a pamphlet entitled Considerations which obliged Peter Manby dean of Londonderry to embrace the Catholic Religion, our author immediately wrote an answer. Mr Manby, encouraged by the court, and assisted by the most learned champions of the church of Rome, published a reply under this title, A reformed Catechism, in two Dialogues, concerning the English Reformation, &c. in reply to Mr King's Answer, &c. Our author soon rejoined, in a Vindication of the Answer. Mr Manby dropped the controversy; but dispersed a loose sheet of paper, artfully written, with this title, A Letter to a Friend, showing the Vanity of this Opinion, that every Man's Sense and Reason are to guide him in Matters of Faith. This Dr King refuted in a Vindication of the Christian Religion and Reformation against the Attempts of a Letter, &c. In 1689 he was twice confined in the Tower by order of King James II. and the same year commenced doctor of divinity. In 1690, upon King James's retreat to France after the battle at the Boyne, he was advanced to the see of Derry. In 1692 he published at London, in 4to, The State of the Protestants of Ireland under the late King James's Government, &c.: "A history (says Bishop Burnet), as truly as it is finely written." He had by him at his death attested vouchers of every particular fact alleged in this book, which are now in the hands of his relations. However, it was soon attacked by Mr Charles Lesly. In 1693 our author finding the great number of Protestant dissenters, in his diocese of Derry, increased by a vast addition of colonists from Scotland, in order to persuade them to conformity to the established church, published A Discourse concerning the Inventions of Men in the Worship of God. Mr Joseph Boyse, a dissenting minister, wrote an answer. The bishop answered Mr Boyse. The latter replied. The bishop rejoined. In 1702 he published at Dublin, in 4to, his celebrated treatise *De Origine Mali*. Mr Edmund Law, M. A. fellow of Christ's college in Cambridge afterwards published a complete translation of this, with very valuable notes, in 4to. In the second edition he has inserted, by way of notes, a large collection of the author's papers on the same subject, which he had received from his relations after the publication of the former edition. Our author in this excellent treatise has many curious observations. He asserts and proves that there is more moral good in the earth than moral evil. A sermon by our author, preached at Dublin in 1709, was published under the title of Divine Predestination and Foreknowledge consistent with the Freedom of Man's Will. This was attacked by Anthony Collins, Esq. in a pamphlet entitled, A Vindication of the Divine Attributes; in some remarks on the archbishop of Dublin's sermon, entitled Divine Predestination, &c. He published likewise, A Discourse concerning the Consecration of Churches; showing what is meant by dedicating them, with the Grounds of that Office. He died in 1720.

KING, *Dr William*, principal of St Mary's hall, Oxford, son of the reverend Peregrine King, was born at

King. at Stepney in Middlesex, in the year 1685. He was made doctor of laws in 1715, was secretary to the duke of Ormond, and earl of Arran, as chancellors of the university; and was made principal of St Mary's hall on the death of Dr Hudson in 1719. When he stood candidate for member of parliament for the university, he resigned his office of secretary, but enjoyed his other preferment, and it was all he did enjoy to the time of his death. Dr Clark, who opposed him, carried the election; and after this disappointment, he, in the year 1727, went over to Ireland, where he is said to have written an epic poem, called *The Toast*, which was a political satire, printed and given away to his friends, but never sold. On the dedication of Dr Radcliff's library in 1749, he spoke a Latin oration in the theatre of Oxford, which was received with the highest acclamations; but it was otherwise when printed, for he was attacked in several pamphlets on account of it. Again, at the memorable contested election in Oxfordshire 1755, his attachment to the old interest drew on him the resentment of the new, and he was libelled in newspapers and pamphlets, against which he defended himself in an *Apology*, and warmly retaliated on his adversaries. He wrote several other things, and died in 1762. He was a polite scholar, an excellent orator, an elegant and easy writer, and esteemed by the first men of his time for his learning and wit.

KING, *Peter*, lord high chancellor of Great Britain, was the son of an eminent grocer and salter, and was born at Exeter in 1669, and bred up for some years to his father's business; but his inclination to learning was so strong, that he laid out all the money he could spare in books, and devoted every moment of his leisure hours to study: so that he became an excellent scholar before the world suspected any such thing; and gave the public a proof of his skill in church history, in his Inquiry into the Constitution, Discipline, Unity, and Worship of the primitive Church, that flourished within the first 300 Years after Christ. London, 1691, in 8vo. This was written with a view to promote the scheme of a comprehension of the dissenters. He afterwards published the second part of the Inquiry into the Constitution, &c.; and having desired, in his preface, to be shown, either publicly or privately, any mistakes he might have made, that request was first complied with by Mr Edmund Elys; between whom and our author there passed several letters upon the subject, in 1692, which were published by Mr Elys in 1694, 8vo, under the title of Letters on several Subjects. But the most formal and elaborate answer to the Inquiry appeared afterwards, in a work entitled, Original Draught of the Primitive Church.

His acquaintance with Mr Locke, to whom he was related, and who left him half his library at his death, was of great advantage to him; by his advice, after he had studied some time in Holland, he applied himself to the study of the law; in which profession his learning and diligence made him soon taken notice of. In the two last parliaments during the reign of King William, and in five parliaments during the reign of Queen Anne, he served as burgess for Beer-Alston, in Devonshire. In 1702, he published at London, in 8vo, without his name, his History of the Apostles Creed, with critical observations on its several articles; which is highly esteemed. In 1708, he was chosen recorder of the city of London, and in 1710, was one of the members of the house of commons at the trial of Dr Sacheverel. In 1714, he was appointed lord chief justice of the common pleas; and the April following, was made one of the privy council. In 1715, he was created a peer, by the title of *Lord King, baron of Ockham in Surry*, and appointed lord high chancellor of Great Britain; in which situation he continued till 1733, when he resigned; and in 1734 died at Ockham in Surry. King || King-te-tching.

KING's Bench. See BENCH, *King's*.

KING Bird. See PARADISEA, ORNITHOLOGY *Index*.

KING's Fisher. See ALCEDO, ORNITHOLOGY *Index*.

Books of KINGS, two canonical books of the Old Testament, so called because they contain the history of the kings of Israel and Judah from the beginning of the reign of Solomon down to the Babylonish captivity for the space of near 600 years. The first book of Kings contains the latter part of the life of David, and his death; the flourishing state of the Israelites under Solomon, his building and dedicating the temple of Jerusalem, his shameful defection from the true religion, and the sudden decay of the Jewish nation after his death, when it was divided into two kingdoms: the rest of the book is taken up in relating the acts of four kings of Judah and eight of Israel. The second book, which is a continuation of the same history, is a relation of the memorable acts of 16 kings of Judah, and 12 of Israel, and the end of both kingdoms, by the carrying of the 10 tribes captive into Assyria by Shalmaneser, and the other two into Babylon by Nebuchadnezzar.

It is probable that these books were composed by Ezra, who extracted them out of the public records, which were kept of what passed in that nation.

KING's County, a county of the province of Leinster in Ireland, taking its name from King Philip of Spain, husband to Queen Mary. It is bounded on the north by West Meath; on the south by Tipperary and Queen's county, from which it is divided by the Barrow; and by part of Tipperary and Galway on the west, from which it is separated by the Shannon. It is a fine fruitful country, containing 257,510, Irish plantation acres, 56 parishes, 11 baronies, and two boroughs. It is about 38 miles long and 30 broad, and the chief town is Philipstown.

KING's Evil, or *Scrophula*. See MEDICINE *Index*.

KING-TE-TCHING, a famous village belonging to the district of Jao-tcheou-fou, a city of China, in the province of Kiang-si. This village, in which are collected the best workmen in porcelain, is as populous as the largest cities of China. It is reckoned to contain a million of inhabitants, who consume every day more than ten thousand loads of rice. It extends a league and a half along the banks of a beautiful river, and is not a collection of straggling houses intermixed with spots of ground: on the contrary, the people complain that the buildings are too crowded, and that the long streets which they form are too narrow; those who pass through them imagine themselves transported into the midst of a fair, where nothing is heard around but the noise of potters calling out to make way. Provisions are dear here, because every thing consumed

is

King-teching ‖ Kingston.

is brought from remote places; even wood, so necessary for their furnaces, is actually transported from the distance of an hundred leagues. This village, notwithstanding the high price of provisions, is an asylum for a great number of poor families, who could not subsist anywhere else. Children and invalids find employment here, and even the blind gain a livelihood by pounding colours. The river in this place forms a kind of harbour about a league in circumference: two or three rows of barks placed in a line sometimes border the whole extent of this vast bason.

KINGDOM, the territories or extent of country subject to a king.

Kingdoms of Nature. Most naturalists following Linnæus, have divided all natural bodies into three great classes, called *kingdoms*. These are the *mineral*, the *vegetable*, and the *animal* kingdoms. See NATURAL HISTORY.

KINGHORN, a borough town in the county of Fife in Scotland, on the frith of Forth, directly opposite to Leith. The manufacture of thread stockings has been long established; and machinery has been introduced for spinning cotton and flax. Many of the men are employed in coasting ships, in the fishery, or the passage boats from hence to Leith, from which the town of Kinghorn derives considerable advantage. This place gives a second title to the earl of Strathmore. The population in 1811 was 2204.

KINGSBRIDGE, a town of Devonshire, 217 miles west-south-west from London, which has a harbour for boats, and it is a chapel of ease to Cheston. The population in 1811 amounted to 1242.

KINGSCLERE, a town of Hampshire, is 56 miles from London, was once the seat of the Saxon kings, and contained 1863 inhabitants in 1811.

KINGSFERRY, in Kent, the common way from the main land to the isle of Sheppey; where a cable of about 140 fathoms in length, fastened at each end across the water, serves to get the boat over by hand. For the maintenance of this ferry and keeping up the highway leading to it through the marshes for above one mile in length, and for supporting a wall against the sea, the land occupiers tax themselves yearly one penny per acre for fresh marsh land, and one penny for every 10 acres of salt marsh land. Here is a house for the ferry-keeper, who is obliged to tow all travellers over free, except on these four days, viz. Palm Monday, Whit-Monday, St James's day, and Michaelmas day, when a horseman pays two pence, and a footman one penny. But on Sunday, or after eight o'clock at night, the ferry-keeper demands sixpence of every horseman, and two pence of every footman, whether strangers or the land occupiers.

KINGSTON UPON THAMES, a town of Surrey in England, situated 13 miles from London. It takes its name from having been the residence of many of our Saxon kings, some of whom were crowned here on a stage in the market place. It has a wooden bridge of 20 arches over the Thames, which is navigable here by barges. There is another bridge here of brick, over a stream that comes from a spring in a cellar four miles above the town, and forms such a brook as to drive two mills not above a bowshot from it and from each other. It is generally the place for the summer assizes of this county. It is a well built town, and in the reigns of King Edward II. and III. sent members to parliament. It has a free school; an alms house built in 1670, for six men and six women, and endowed with lands to the value of 80l. a-year: and a charity school for 30 boys, who are all clothed. Here is a spacious church with eight bells; adjoining to which, on the north side was formerly a chapel dedicated to St Mary, in which were the pictures of three of the Saxon kings that were crowned here, and also that of King John, who gave the inhabitants of this town their first charter of incorporation. But these were all destroyed by the fall of this chapel in 1730. Here is a good market for corn. Population 4144 in 1811. Kingston.

Kingston upon Hull, a town in the east riding of Yorkshire, 173 miles from London. Its common name is simply *Hull*, and it is situated at the conflux of the rivers Hull and Humber, and near the place where the latter opens into the German ocean. It lies so low, that by cutting the banks of the Humber the country may be laid under water for five miles round. Towards the land it is defended by a wall and a ditch, with the farther fortification of a castle, a citadel, and blockhouse. Hull has convenient docks for the shipping that frequent this port. The first dock was completed some years ago. The town is large and populous, containing two churches, several meeting houses, a free school, a charity school, and some hospitals. Among the latter is one called *Trinity house*, in which are maintained many distressed seamen, both of Hull and other places, that are members of its port. It is governed by 12 elder brethren and six assistants; out of the former are chosen annually two wardens, and out of the younger brethren two stewards; they determine questions between masters and seamen, and other sea matters. A handsome infirmary has lately been erected without the town to the north. Here are also an exchange and a customhouse, and over the Hull a wooden draw-bridge. A good harbour was made here by Richard II. This town has not only the most considerable inland traffic of any port in the north of England, but a foreign trade superior to any in the kingdom, excepting the ports of London, Bristol, Liverpool, and Yarmouth. By means of the many large rivers that fall into the Humber, it trades to almost every part of Yorkshire, as well as to Lincolnshire, Nottinghamshire, Staffordshire, Derbyshire, and Cheshire: the commodities of which counties are brought hither, and exported to Holland, Hamburgh, France, Spain, the Baltic, and other parts of Europe. In return for these, are imported iron, copper, hemp, flax, canvas, Russia linen and yarn, besides wine, oil, fruit, and other articles. Such quantities of corn are also brought hither by the navigable rivers, that Hull exports more of this commodity than London. The trade of Hull with London, particularly for corn, lead, and butter, and with Holland and France, in times of peace, for those commodities, as well as for cloth, kerseys, and other manufactures of Yorkshire, is very considerable. In 1803 the number of ships belonging to Hull, employed in the Greenland and Davis's straits whale fishery, amounted to 40. The mayor of Hull has two swords, one given by King Richard II. the other by Henry VIII. but only one is borne before him at a time; also a cap of maintenance, and an oar of lignum vitæ

Kingston || Kinsale.

vitæ as a badge of his admiralty jurisdiction within the limits of the Humber. This town gave title of earl to Robert Pierpont of Holme Pierpont, Viscount Newark, created in the 4th of Charles I. and afterwards that of duke in the same family. The last duke of Kingston died in 1773, and the title became extinct. In 1811 the population was 26,792.

KINGSTON, a town of Ireland, in the province of Leinster, and capital of King's county. W. Long. 7. 20. N. Lat. 53. 15. It is otherwise called *Philips-Town*.

KINGSTON, a town of Jamaica, seated on the north side of the bay of Port Royal. It was founded in the year 1693, when the repeated desolations by earthquake and fire had driven the inhabitants from Port Royal. It extends a mile from north to south, and about as much from east to west, on the harbour. It contains about 3000 houses, besides negro houses, and warehouses. The number of white inhabitants is about 10,000; of free people of colour 5000; and of slaves, about 18,000. It is the county town, where the assizes are held, in January, April, July, and October, and last about a fortnight. It is a place of great trade. W. Long. 76. 52. N. Lat. 17. 50.

KINGTON, or KYNETON, a pretty large town in Herefordshire, 146 miles from London. It is situated on the river Arrow, and is inhabited chiefly by clothiers, who drive a considerable trade in narrow cloth. It has a considerable market for corn, cattle, leather, home-made linen and woollen cloth, and all sorts of provisions.

KINNOR, or CHINNOR. See CHINNOR.

KINO, a gum resin. See MATERIA MEDICA *Index*.

KINROSS, the county town of Kinross-shire in Scotland, situated in W. Long. 3. 25. N. Lat. 56. 15. on the west side of Lochleven, a fresh water lake about 10 miles in compass, abounding with pike, trout, perch, and water fowl. The manufactures are linen and some cutlery ware. The house of Kinross, an elegant ancient structure, stands on the north side of the town. Kinross sends a member to parliament by turns with Clackmannan. In the lake are two islands; on one of which appear the ruins of a priory, heretofore possessed by the Culdees; the other is famous for the castle in which Queen Mary was imprisoned by her rebellious subjects.

The following is the population of this county according to its parishes *. *Statist. Act.*

Parishes.	Population in 1755.	Population in 1790—1798.
Cleish	692	653
Kinross	1310	1839
Orwell	1891	1705
Portmoak	969	1105
	4889	5302
Population in 1811,	7245	

See KINROSS-SHIRE, SUPPLEMENT.

KINSALE, a town of the county of Cork in Ireland, situated at the mouth of the river Ban or Bandon, 136 miles from Dublin. It is reckoned the third town in the kingdom, and inferior only to Cork in point of trade. It is neat, well built, and wealthy; and is governed by a sovereign and recorder. It is defended by a strong fort built by King Charles II. called *Charles's fort*; and on the opposite shore there are two well built villages, called *Cove* and *Scilly*. In the town and liberties are 6 parishes, 30 plough lands, and therein 6846 acres, and the population amounts to 10,000. The barracks hold 12 companies of foot, besides a regiment at Charles's fort. In the centre of the town is a good market-house, and near it a strong-built prison; and there are scattered up and down the ruins of several monasteries and religious houses. In time of war Kinsale is a place of much business, being then frequented by rich homeward bound fleets and ships of war, for which reason most of the houses are then let at double rents. The harbour is very commodious, and perfectly secure; so large that the English and Dutch Smyrna fleets have anchored in it at the same time. There is a dock and yard for repairing ships of war, and a crane and gun wharf for landing and shipping heavy artillery. Ships may sail into or out of this harbour, keeping in the middle of the channel, with the utmost safety. Within the haven on the west side lies a great shelf, which shoots a great way off from the land; but leaves an ample passage by the side of it, in which, as in all the rest of the harbour, it is many fathoms deep. Lord Kinsale has the ancient privilege of keeping his hat on in the king's presence. Kinsale gives the title of *baron* to the very ancient family of Courcy, lineally descended from John de Courcy, earl of Ulster, who from him have the privilege to be covered in the presence of the king of England. Kinsale || Kippis.

KINTORE, a royal borough of Aberdeenshire in Scotland, situated on the river Don, in W. Long. 2. 6. N. Lat. 57. 10. It gives the title of *earl* to a branch of the noble family of Keith. The population in 1811 was 863.

KINTYRE. See CANTIRE.

KIOF, or KIOW, a considerable town of Poland, and capital of the Ukrain, in the palatinate of the same name, with an archbishop's see and castle. It belongs to Russia, and carries on a considerable trade. It is divided into the Old and New Town, and seated on the river Nieper, in E. Long. 31. 51. N. Lat. 50. 12.

KIPPIS, ANDREW, a learned and eminent English non-conformist divine and biographer, was born at Nottingham, on the 28th of March 1725. On the death of his father, he was removed to Sleaford in Lincolnshire at five years of age, where he received his grammar education, and gave such early proofs of talents and progress, as attracted the notice of Mr Merrivale, the pastor of a congregation of dissenters at that place. To this excellent man it was probably owing that young Kippis directed his views to the profession of a dissenting minister, and to those studies in which he afterwards so much excelled. In 1741 he was placed in the academy at Northampton, under the tuition of the celebrated Dr Doddridge, a seminary at that time in high reputation. Of the advantages which this institution afforded him, Mr Kippis knew how to make the best improvement, and his regular conduct and proficiency secured him the esteem of his worthy tutor. Having completed his course of studies in five years, he was invited to a dissenting congregation at

Kippis. Dorchester, but he gave the preference to a similar call from Boston in Lincolnshire in 1746, where he remained till 1750, removing from thence to Dorking in Surrey, and two years after to Long Ditch, Westminster, in the room of Dr Hughes deceased. This was in October 1753, and in the preceding month he married Miss Elizabeth Bott, the daughter of a merchant at Boston.

The situation, for which Mr Kippis was eminently qualified by his extensive abilities, being now respectable, introduced him to useful and honourable connections. He became a manager of the presbyterian fund for the assistance of poor congregations in the country in supporting their ministers, and in 1762 he was chosen a member of Dr Williams's trust, nearly for similar purposes, together with the doctor's valuable library, which afforded him opportunities of very extensive usefulness. In 1762, he signified among his friends his design of taking private pupils, and was on the eve of entering into engagements with the parents of two or three young gentlemen, when a more honourable although a less lucrative employment was offered him. He was appointed classical and philological tutor in Coward's academy, an office which he filled for upwards of 25 years with uncommon reputation to himself, and unspeakable advantage to his students. He received the degree of D. D. from the university of Edinburgh, by the unsolicited recommendation of the learned Professor Robertson in 1767; in 1778 he was made a member of the Antiquarian, and in 1779 a fellow of the Royal Society.

His literary engagements growing extremely numerous, in 1784 he was obliged to resign his appointment in Coward's academy, which was discontinued in the subsequent year. In 1786, attempts were made to establish a new academy in the vicinity of London; a design which Dr Kippis exerted all his influence to accomplish; and although his numerous engagements made it extremely difficult for him to fill any department in it, he reluctantly yielded to the wishes of the subscribers, and became a tutor. But the inconvenience arising from the distance of Hackney from his place of residence, made him resign that office in a few years. His professional duties and private studies occupied his time after this period; and as he enjoyed an uninterrupted state of good health and constitutional vigour, made his friends hope that his life and usefulness would be long continued; but in consequence of a cold which he caught on a journey, he was seized with a fever which no medical knowledge could subdue, and he died on the 5th of October 1795, in the 71st year of his age.

Dr Kippis was distinguished in a high degree for those virtues and accomplishments which are universally allowed to be the chief ornaments of human nature. His temper was mild and gentle, benevolent and candid; his manners and address were easy, polished and conciliating. Notwithstanding his great reputation, he was void of pride, vanity, and self-conceit; he was humble, modest, affable and engaging. The powers and vigour of his mind were far above mediocrity; he had a sound judgment, a comprehensive understanding, correct imagination, retentive memory, a refined taste, and he could exert his faculties on any subject with the utmost facility. He was an early riser from his youth, to which in a great measure his good health may be ascribed. He excelled in his acquaintance with the classics, belles-lettres, history, and biography. He was the steady friend and advocate of genuine civil and religious liberty; and as a divine, he was well acquainted with the different branches of theology, and with those subjects which are subservient to the critical study of the scriptures. He very seldom introduced controverted topics into the pulpit, but confined himself to such doctrines and duties as have an immediate influence on the temper and practice.

His works are numerous and valuable, of which we give the following as a specimen: Review of the Transactions of the present Reign; The History of Learning, Knowledge, and Taste in Great Britain; A Vindication of the Protestant Dissenting Ministers, with regard to their late application to Parliament; Considerations on the Provisional Treaty with America, and the Preliminary Articles of Peace with France and Spain; the Life of Sir John Pringle; Six Discourses delivered at the Royal Society, on assigning the Copley Medal; the Life of Captain James Cook, of Dr Lardner, and Dr Doddridge; Sermons preached on public occasions; Biographia Britannica, &c. &c. This last great work, which he did not live to finish, has assigned him a high rank among the learned of his country, and will transmit his name to posterity with distinguished reputation.

KIRCH, Christian-Frederic, of Berlin, a celebrated astronomer, was born at Guben in 1694, and acquired great reputation in the observatories of Dantzic and Berlin. Godfrey Kirch his father, and Mary his mother, acquired considerable reputation by their astronomical observations. This family corresponded with all the learned societies of Europe, and their astronomical works are in some repute.

KIRCHER, Athanasius, a famous philosopher and mathematician, was born at Fulde in 1601. In 1618, he entered into the society of the Jesuits, and taught philosophy, mathematics, the Hebrew and Syriac languages, in the university of Witzburg, with great applause, till the year 1631. He went to France on account of the ravages committed by the Swedes in Franconia, and lived some time at Avignon. He was afterwards called to Rome, where he taught mathematics in the Roman College, collected a rich cabinet of machines and antiquities, and died in 1680.—The quantity of his works is immense, amounting to 22 vols in folio, 11 in quarto, and 3 in 8vo; enough to employ a man for a great part of his life even to transcribe them. Most of them are rather curious than useful; many of them visionary and fanciful; and if they are not always accompanied with the greatest exactness and precision, the reader, it is presumed, will not be astonished. The principal of his works are, 1. *Prælusiones magneticæ*. 2. *Primitiæ gnomonicæ catoptricæ*. 3. *Ars magna lucis et umbræ*. 4. *Musurgia universalis*. 5. *Obeliscus Pamphilius*. 6. *Oedipus Ægyptiacus*, four volumes, folio. 7. *Itinerarium extaticum*. 8. *Obeliscus Ægyptianus*, in four volumes, folio. 9. *Mundus subterraneus*. 10. *China illustrata*.

KIRIATHAIM, in *Ancient Geography*, one of the towns built by the Reubenites; reckoned to the tribe

Kiriathaim ‖ Kirkby-Thore.

tribe of Reuben (Josh. xiii.), 12 miles to the west of Midaba. The ancient residence of the giants called *Emim*.

KIRIATH-ARBA. See HEBRON.

Kiriath-Baal, or *Cariath-Baal*, called also *Kiriath-jearim*, "the city of the woods;" one of the cities of the Gibeonites, belonging to the tribe of Judah, nine miles from Ælia, in the road to Diospolis. It was also called *Baala* (Joshua). The ark of the covenant, after its recovery from the Philistines, stood for some time in this city (1 Sam. vii.).

KIRK, a Saxon term, signifying the same with church.

Kirk-Sessions, the name of a petty ecclesiastical judicatory in Scotland. Each parish, according to its extent, is divided into several particular districts; every one of which has its own elder and deacon to oversee it. A consistory of the ministers, elders, and deacons of a parish, forms a kirk-session.—These meet once a-week, the minister being their moderator, but without a negative voice. It regulates matters relating to public worship, catechising, visitations, &c. It judges in lesser matters of scandal; but greater, as adultery, are left to the presbytery; and in all cases an appeal lies from it to the presbytery. Kirk-sessions have likewise the care of the poor and poor's funds.

KIRKALDY, a town of the county of Fife in Scotland, two miles to the north-east of Kinghorn. It is a royal borough, the seat of a presbytery, and gives the title of *baron* to the earl of Melville. The town is populous, well built, and extends a mile in length from east to west, enjoying a considerable trade by exporting its own produce and manufactures of corn, coal, linen, and salt. The population in 1811 was 3747. W. Long. 3. 9. N. Lat. 56. 8.

KIRKBY-LONSDALE, a town of Westmoreland, 253 miles from London. It has a woollen manufactory, and a market on Tuesday. It has a free school well endowed with three presentations to Christ's college, Cambridge. It has a large church, and a good stone bridge of three arches over the Lon. From its churchyard and the banks of the river, there is a very fine prospect of the mountains at a vast distance, as well as of the course of the river, which abounds with salmon, trout, &c.; and provisions of all sorts are very cheap here. The number of inhabitants in 1811 was 1368.

Kirkby-Steven, or *Stephen's Church*, a town of Westmoreland, 257 miles from London, stands on the river Eden near Sedbergh and Asgarth. The church is a large building with a lofty tower; in it are several old monuments. Here is a good free school that has two exhibitions. The town is noted for the manufactory of yarn stockings; and it contained 1235 inhabitants in 1811.

Kirkby-Thore, a town of Westmoreland, stands also on the river Eden, north-west of Appleby, 267 miles from London. A horn of a moose deer was found here a few years since, at the depth of four feet from the surface of the earth: and several other antiquities have been dug up or taken out of a well, discovered at the end of the town near the bridge. Below it are the vast ruins of an ancient town, where Roman coins and urns are frequently dug up. The people call it *Whely castle*, 300 yards in length, and 150 in breadth, with three entrances on each side, with bulwarks before them. At a little distance from thence Roman urns are found, containing bones and ashes. The old military way runs through it, called the *Maiden way*, because it began at Maiden-castle in Stainmore in Yorkshire, north riding.

Kirkby-Thore ‖ Kirkcudbright.

KIRKCUDBRIGHT, county or stewartry of, makes a considerable part of Galloway, and of which the earls of Nithisdale were hereditary stewards. It is 45 miles long, and 30 broad, and with Wigtonshire formed the ancient province of Galloway. The face of the country exhibits the appearance of one continued heath, producing nothing but pasture for sheep and small black cattle, which are generally sold in England; yet these dusky moors are intersected with pleasant valleys, and adorned with a great number of castles belonging to private gentlemen, every house being surrounded with an agreeable plantation. It is watered by the river Dee; which taking its rise from the mountains near Carrick, runs through a tract of land about 70 miles in length, and, entering the Irish sea, forms the harbour of Kirkcudbright, a borough town, well situated for the fishery and other branches of commerce. There is no other town of any consequence in this stewartry. Kirkcudbright gives title of *baron* to the Maclellans, formerly a powerful family in the county. The population of this county, according to its parishes, is the following.

Statist. Hist.

	Parishes.	Population in 2755.	Population in 1790—1798.
1	Anwoth	531	495
	Balmaclellan	534	495
	Balmacghie	697	862
	Borg	697	771
5	Buittle	899	855
	Carsefairn	609	461
	Colvend	898	964
	Crossmichael	613	772
	Dalry	891	1100
10	Girthon	367	1730
	Irongray	895	762
	Kells	784	869
	Kelton	811	1600
	Kirkbean	529	660
15	Kirkcudbright	1513	2295
	Kirkgunion	489	520
	Kirkmabreck	858	1088
	Kirkpatrick Durham	699	1000
	Lochrutton	564	528
20	Minigaff	1209	1420
	Newabbey	634	649
	Orr	1193	1354
	Parton	396	409
	Rerwick	1051	1050
25	Terregles	397	510
	Troqueer	1391	2600
	Tungland	537	520
28	Twynhame	519	620
		21,205	26,959
	Population in 1811	33,684	

See KIRKCUDBRIGHTSHIRE, SUPPLEMENT.

Kirkham || Kirstensius.

KIRKHAM, a town of Lancashire, 221 miles from London, stands near the Ribble, six miles from the Irish sea, in that part of the county called the *Field lands*. It has a market and three fairs, and a free school well endowed. By means of inland navigation, it has a communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles, in the counties of Lincoln, Nottingham, York, Westmoreland, Chester, Warwick, and Oxford. Population 2214.

KIRKOSWALD, a town of Cumberland on the Eden, 291 miles from London. It had formerly a castle, which was demolished above 100 years ago. It has a market and two fairs. Its church is a very irregular old building; and the belfry is placed distant from the church on the top of a hill, that the sound of the bells might be more easily heard by the circumjacent villages.

KIRKWALL, the capital of the Orkneys, situated in the island of Pomona, in W. Long. 0. 25. N. Lat. 58. 33. It is built upon an inlet of the sea near the middle of the island, having a very safe road and harbour for shipping. It is a royal borough, governed by a provost, bailies, and common council. It was formerly possessed by the Norwegians, who bestowed upon it the name of *Crucoviaca*. From King James III. of Scotland they obtained a new charter, empowering them to elect their own magistrates yearly, to hold borough courts, arrest, imprison, make laws and ordinances for the right government of the town; to have a weekly market, and three fairs annually at certain fixed terms: he moreover granted to them some lands adjoining to the town, with the customs and shore dues, the power of pit and gallows, and exempted them from the expence of sending commissioners to parliament. This charter has been confirmed by succeeding monarchs. At present Kirkwall is the seat of justice, where the steward, sheriff, and commissary, hold their several courts of jurisdiction: Here is likewise a public grammar school, endowed with a competent salary for the master. The town consists of one narrow street about a mile in length; the houses are chiefly covered with slate, though not at all remarkable for neatness and convenience.—The principal edifices are the cathedral church and the bishop's palace. The former, called *St Magnus*, from Magnus king of Norway, the supposed founder of the town, is a large Gothic structure: the roof is supported by 24 pillars on each side, and the spire is built upon four large columns. The gates are decorated with a kind of mosaic work, of red and white stones elegantly carved and flowered. By the ruins of the king's castle or citadel, it appears to have been a strong and stately fortress. At the north end of the town a fortification was built by the English in the time of Oliver Cromwell, but it is now in ruins. It was surrounded with a ditch and rampart; but it has been allowed to fall into ruins. The population in 1801 was 2621.

KIRSTENSIUS, PETER, professor of physic at Upsal, and physician extraordinary to the queen of Sweden, was born at Breslaw in 1577. He studied Greek, Latin, Hebrew, Syriac, natural philosophy, anatomy, botany, and other sciences. Being told that a man could not distinguish himself in physic unless he understood Avicenna, he applied himself to the study of Arabic; and not only to read Avicenna, but also Mesue, Rhasis, Abenzoar, Abukasis, and Averroes. He visited Spain, Italy, England, and did not return home from his travels till after seven years. He was chosen by the magistrates of Breslaw to have the direction of their college and of their schools. A fit of sickness having obliged him to resign that difficult employment, with which he was also much disgusted, he applied himself chiefly to the practice of physic, and went with his family into Prussia. Here he obtained the friendship and esteem of the chancellor Oxenstiern, whom he accompanied into Sweden; where he was made professor of physic in the university of Upsal, and physician to the queen. He died in 1640. It is said in his epitaph, that he understood 26 languages. He wrote many works; among which are, 1. *Liber secundus Canonis Avicennæ, typis Arabicis, ex MSS. editus, et ad verbum in Latinum translatus*, in folio. 2. *De vero usu et abusu Medicinæ*. 3. *Grammatica Arabica*, folio. 4. *Vitæ quatuor Evangelistarum, ex antiquissimo codice MSS. Arabico erutæ*, in folio. 5. *Notæ in Evangelium S. Matthæi, ex collatione textuum Arabicorum, Syriacorum, Egyptiacorum, Græcorum, et Latinorum*, in folio, &c.

Kirstensius || Kissing.

He ought not to be confounded with *George Kerstenius*, another learned physician and naturalist, who was born at Stettin, and died in 1660; and is also the author of several works.

KIRTLE, a term used for a short jacket; also for a quantity of flax about a hundred weight.

KIRTON, or KIRKTON, a town of Lincolnshire, 151 miles from London. It had its name from its kirk or church, which is truly magnificent. It has a market and two fairs. This place is famous for the pippin, which, when grafted on its stock, is called the *rennet*. It gives name to its hundreds, in which are four villages of the same name.

KISSER, the ancient Colonia Assuras in Africa, as appears from many inscriptions still to be met with in the place. Here is a triumphal arch done in a very good taste: there is also a small temple of a square figure, having several instruments of sacrifice carved upon it; but the execution is much inferior to the design, which is very curious. The town is situated in the kingdom of Tunis, on the declivity of a hill, above a large fertile plain; which is still called the plain of *Surso*, probably from its ancient name *Assuras*.

KISSING, by way of salutation, or as a token of respect, has been practised in all nations. The Roman emperors saluted their principal officers by a kiss. Kissing the mouth or the eyes was the usual compliment upon any promotion or happy event. Soldiers kissed the general's hand when he quitted his office. Fathers, amongst the Romans, had so much delicacy, that they never embraced their wives in the presence of their daughters. Near relations were allowed to kiss their female kindred on the mouth: but this was done in order to know whether they smelt of wine or not; because the Roman ladies, in spite of a prohibition to the contrary, were found sometimes to have made too free with the juice of the grape. Slaves kissed their masters hand, who used to hold it out to them for that purpose. Kissing was a customary mode of salu-

tation

Kissing, Kisti.

tation among the Jews, as we may collect from the circumstance of Judas approaching his Master with a kiss. Relations used to kiss their kindred when dying, and when dead; when dying, out of a strange opinion that they should imbibe the departing soul; and when dead, by way of valedictory ceremony. They even kissed the corpse after it was conveyed to the pile, when it had been seven or eight days dead.

KISTI, an Asiatic nation, which extends from the highest ridge of Caucasus, along the Sundsha rivulets. According to Major Rennel *, they are bounded to the west by the little Cabarda, to the east by the Tartars and Lesguis, and to the south by the Lesguis and Georgians. He imagines they may be the people whom Gaerber calls the *Taulinzi*, i. e. "mountaineers," and to whom he attributes the following strange custom:—"When a guest or stranger comes to lodge with them, one of the host's daughters is obliged to receive him, to unsaddle and feed his horse, take care of his baggage, prepare his dinner, pass the night with him, and continue at his disposal during his stay. At his departure, she saddles his horse and packs up his baggage. It would be very uncourtly to refuse any of these marks of hospitality." The different tribes of this restless and turbulent nation are generally at variance with each other, and with all their neighbours. Their dialects have no analogy with any known language, and their history and origin are at present utterly unknown.

* *Memoir of a map of the countries comprehended between the Black Sea and the Caspian.*

Their districts, as enumerated in Major Rennel's Memoir, are, 1, Ingushi, about 60 miles to the southward of Mosdok, in the high mountains about the Kumbelei. 2. Endery; and, 3. Axai, on a low ridge between the Sundsha and Iaxai rivers. In their territories are the hot wells. 4. Ackinyurt towards the upper part of the Sundsha and Kumbelei. 5. Ardakli, on the Roshni that joins the Sundsha. 6. Wapi, near the Ossetiu village Tshim, towards the source of the Terek. 7. Angusht, on the upper part of the Kumbelei. 8. Shalkha, called by the Russians *Maloi Angusht*. 9. Thetshen, on the lower part of the Argun river. 18. Atakhi, a small district on the upper part of the Argun. 11. Kulga, or Dshanti, in the high mountains. 12. Galgai, or Halha, about the source of the Asai, a Sundsha rivulet. 13. Tshabrilo, and Shabul, on the Sundsha. 14. Tshishui-Kabul, on the Roshni, a Sundsha rivulet. 15. Karaboulak, a wandering tribe, who have their little villages about the six uppermost rivulets of the Sundsha, particularly the Fortau. 16. Meesti, Meredshi, Galashka, and Duhan, are small tribes on the Axai.

The Ingushi, or first of the above tribes, submitted to Russia in 1770. They are capable of arming about 5000 men; they call themselves *Ingushi*, *Kisti*, or *Halha*; they live in villages near each other, containing about 20 or 30 houses; are diligent husbandmen, and rich in cattle. Many of their villages have a stone tower, which serves in time of war as a retreat to their women and children, and as a magazine for their effects. These people are all armed, and have the custom of wearing shields.—Their religion is very simple, but has some traces of Christianity: They believe in one God, whom they call *Dailé*, but have no saints or religious persons; they celebrate Sunday, not by any religious ceremony, but by resting from labour; they have a fast in spring, and another in summer; they observe no ceremonies either at births or death; they allow of polygamy, and eat pork. One kind of sacrifice is usual among them: at certain times a sheep is killed by a person who seems to be considered as a kind of priest, as he is obliged to live in a state of celibacy. His habitation is in the mountains, near an old stone church, which is said to be adorned with various statues and inscriptions. Under the church is a vault that contains certain old books, which, however, no one ever attempts to approach. Mr Guldenstaed †, was prevented by the weather from visiting this church.

Kisti ‖ Kleinhovia.

† *Rise*, vol. i. p. 150.

The 6th, 7th, and 8th tribes, which were formerly tributary to the Cabardean princes, submitted to Russia in 1770. The 9th, Tshetshen, is governed by its own chiefs, who are related to the Avar-Khan. This tribe is so numerous and warlike, and has given the Russians so much trouble, that its name is usually given by them to the whole Kisti nation. The chief village of Tshetshen lies on the Argun, about 15 miles from its mouth. Its other principal villages are Hadshiaul and Iangejent, both on the Sundsha.

KIT, in *Music*, the name of a small violin, of such form and dimension as to be capable of being carried in a case or sheath in the pocket. Its length, measuring from the extremities, is about 16 inches, and that of the bow about 17. Small as this instrument is, its powers are co-extensive with those of the violin.

Kit-Cat Club, an association of above 30 noblemen and gentlemen of distinguished merit, formed in 1703, purely to unite their zeal in favour of the Protestant succession in the house of Hanover. Their name was derived from Christopher Kat, a pastry cook, near the tavern where they met in King's street, Westminster, who often supplied them with tarts. Old Jacob Tonson was their bookseller: and that family is in possession of a picture of the original members of this famous club, painted by Sir Godfrey Kneller. The design of these gentlemen was to recommend and encourage true loyalty by the powerful influence of wit and humour; and Sir Samuel Garth distinguished himself by the extempore epigrams he made on their toasts, which were inscribed on their drinking glasses.

KITCHEN, the room in a house where the provisions are cooked.

Army KITCHEN, is a space of about 16 or 18 feet diameter, with a ditch surrounding it three feet wide; the opposite bank of which serves as a seat for the men who dress the victuals. The kitchens of the flank companies are contiguous to the outline of the camp; and the intermediate space is generally distributed equally for the remaining kitchens; and as each tent forms a mess, each kitchen must have as many fire places as there are tents in the company.

Kitchen Garden, a piece of ground laid out for the cultivation of fruit, herbs, pulse, and other vegetables, used in the kitchen. See GARDENING.

KITE. See FALCO, ORNITHOLOGY *Index*.

KITTIWAKE. See LARUS, ORNITHOLOGY *Index*.

KIU-HOA. See PARTHENIUM, BOTANY *Index*.

KIUN-TCHEOU. See *Hai-Nan*.

KLEINHOVIA, a genus of plants belonging to the

Kleinhovia, Kleist.

the gynandria class, and in the natural method ranking under the 37th order, *Columniferæ*. See BOTANY *Index*.

KLEIST, EDWARD CHRISTIAN DE, a celebrated German poet, and a soldier of distinguished bravery, was born at Zeblin, in Pomerania, in 1715. At nine years of age he was sent to pursue his studies at Cron in Poland; and he afterwards studied at Dantzic and Koningsberg. Having finished his studies, he went to visit his relations in Denmark, who invited him to settle there; and having in vain endeavoured to obtain preferment in the law, at 21 years of age accepted of a post in the Danish army. He then applied himself to the study of all the sciences that have a relation to military affairs, with the same assiduity as he had before studied civil law. In 1740, at the beginning of the reign of Frederic king of Prussia, Mr de Kleist went to Berlin, and was presented to his majesty, who made him lieutenant of his brother Prince Henry's regiment; and he was in all the campaigns which distinguished the first five years of the king of Prussia's reign. In 1749 he obtained the post of captain; and in that year published his excellent poem on the Spring. Before the breaking out of the last war, the king chose him, with some other officers at Potsdam, companion to the young Prince Frederic William of Prussia, and to eat at his table. In the first campaign, in 1756, he was nominated major of Hausen's regiment; which being in garrison at Leipsic, he had time to finish several new poems. After the battle of Rosbach, the king gave him, by an order in his own handwriting, the inspection of the great hospital established at Leipsic. And on this occasion his humanity was celebrated by the sick and wounded of both parties, and his disinterestedness was equally admired by all the inhabitants of that city. In 1758, Prince Henry coming to Leipsic, Mr Kleist desired to serve in his army with the regiment of Hausen, which was readily granted. Opportunities of distinguishing himself could not be wanting under that great officer, and he always communicated his courage to the battalion under his command. He also served that prince at the beginning of the campaign of 1759, when he was with him in Franconia, and in all the expeditions of that army, till he was detached with the troops under General de Fink to join the king's army. On the 12th of August was fought the bloody battle of Kunnersdorf, in which he fell. He attacked the flank of the Russians, and assisted in gaining three batteries. In these bloody attacks he received twelve contusions; and the two first fingers of his right hand being wounded, he was forced to hold his sword in the left. His post of major obliged him to remain behind the ranks; but he no sooner perceived the commander of the battalion wounded and carried away, than he instantly put himself at the head of his troop. He led his battalion in the midst of the terrible fire of the enemy's artillery, against the fourth battery. He called up the colours of the regiment; and, taking an ensign by the arm, led him on. Here he received a ball in his left arm; when, being no longer able to hold his sword in his left hand, he took it again in the right, and held it with the two last fingers and his thumb. He still pushed forward, and was within thirty steps of the battery, when his right leg was shattered by the wadding of one of the great guns; and he fell from his horse, crying to his men, "My boys, don't abandon your king." By the assistance of those who surrounded him, he endeavoured twice to remount his horse; but his strength forsook him, and he fainted. He was then carried behind the line; where a surgeon, attempting to dress his wounds, was shot dead. The Cossacks arriving soon after, stripped Mr Kleist naked, and threw him into a miry place; where some Russian hussars found him in the night, and laid him upon some straw near the fire of the grand guard, covered him with a cloak, put a hat on his head, and gave him some bread and water. In the morning one of them offered him a piece of silver, which he refused; on which he tossed it upon the cloak that covered him, and then departed with his companions. Soon after the Cossacks returned, and took all that the generous hussars had given him. Thus he again lay naked on the earth; and in that cruel situation continued till noon, when he was known by a Russian officer, who caused him to be conveyed in a waggon to Frankfort on the Oder; where he arrived in the evening, in a very weak state, and was instantly put into the hands of the surgeons. But the fractured bones separating, broke an artery, and he died by the loss of blood. The city of Frankfort being then in the hands of the enemy, they buried this Prussian hero with all military honours: the governor, a great number of the Russian officers, the magistrates of the city, with the professors and the students, formed the procession, preceded by the funeral music. Mr Kleist's poems, which are greatly admired, are elegantly printed in the German tongue, in two volumes 8vo.

Kleist, Klopstock.

KLOPSTOCK, FREDERIC THEOPHILUS, who was born at Quedlinburg in 1724, was the greatest and most justly celebrated of the German poets. His father was a man of an elevated character, and a magistrate of that place, who afterwards farmed a bailiwick in the Brandenburg part of Mansfeld. Klopstock was the oldest of eleven children, and having received the rudiments of education at home, he was put to the public school of Quedlinburg, where he soon became conspicuous both for bodily and mental exercises. He went to the college of the same place at the age of sixteen, where, under the tuition of an able teacher, he obtained a knowledge of, and taste for, the beauties of the best classical authors. He composed some pastorals in verse; and even at this early period he conceived the bold design of writing an epic poem, fixing at length, after much deliberation on the "Messiah," by which he has rendered his name immortal.

He commenced the study of theology at the university of Jena, in the year 1745, although in his retirement he was constantly ruminating on his great projected work already mentioned, sketching out the three first cantos. They were first written in prose, as the common measure of German verse did not accord with his own sentiments. Transported with the melody of Homer's and Virgil's strains, he determined to make trial of German hexameters, in which he succeeded so entirely to his own satisfaction, that he fixed upon this majestic verse for the whole of his poem. By his removal from Jena to Leipzig in 1746, he became acquainted with a number of young votaries of the muses, who

Klopstock. who occasionally published their essays in a paper called the "Bremen Contributions," in which appeared the three cantos of Klopstock's Messiah, and a number of his odes, for which he was so applauded as to animate him to persevere.

He quitted Leipzig in 1748, and resided at Langensalza, where he carried on a fruitless correspondence with a beautiful young lady, who discovered no inclination to return his passion, which for some time threw a gloom over his mind. He now published ten books of his Messiah, by which he came to be known and admired all over Germany. It was an extremely popular work among all those who were at once the lovers of poetry and devotion. It was quoted from the pulpit by young divines, while others of a more stern deportment found fault with the author, as indulging too much in fiction on sacred topics.

He travelled into Switzerland in 1750 to pay a visit to Bodmer of Zurich, in consequence of an invitation, where he was received with every token of respect. The sublime scenery of that country, the simplicity of its inhabitants, and the freedom they enjoyed, were admirably suited to the taste and sentiments of Klopstock. Here in all probability he would have breathed his last, had not Baron Bernstorff, who was charmed with his poetry, engaged Count Molke, after returning from France to Copenhagen, to invite him to that city, with assurances of such a pension as would make him independent. Our author accordingly set out for Copenhagen in the year 1751, by the way of Brunswick and Hamburgh, at which latter place he became acquainted with a young lady (Miss Moller) of literary abilities, and a heart susceptible of tender impressions. They were soon after married, and seemed destined by Providence to be one of the happiest couples upon earth, but he was very soon deprived of her, for she died in childbed, and her memory was sacred to Klostock to the last hour of his existence. He lived for the most part at Copenhagen till the year 1771, after which he resided at Hamburgh in the capacity of royal Danish legate, and counsellor of the margrave of Baden, who gave him a pension, and engaged him to pass the year 1775 at his palace of Carlsruhe. Such was the diffidence of our poet, that it required the most extraordinary condescension on the part of the great to make him easy in their presence.

The decline of his health made no change on the habitual tranquillity of his mind; he contemplated his approaching dissolution without any dismay, and his pious fortitude continued unshaken amidst the severest sufferings. He died at Hamburgh in March 1803, being 79 years of age, and his funeral was attended with such honours as justly belonged to the greatest poet of the country.

The character of Klopstock as a poet is that of exuberance of imagination and sentiment. His sublimity, which is nearly unparalleled, makes him almost lose himself in mystical attraction. A great critic claims for the author of the Messiah, and we think justly, a rank among the very first class of poets. His odes and lyric poems are much admired by his countrymen, and his dramatic works display great force and dignity, but are thought to be better adapted to the closet than the theatre. He was also an excellent prose writer, as is fully evinced by his "Grammatical Dialogues." Klopstock Knave.

KNARESBOROUGH, a town in the west riding of Yorkshire in England, 109 miles from London, is an ancient borough by prescription, called by foreigners the *Yorkshire Spaw*. It is almost encompassed by the river Nid, which issues from the bottom of Craven hills; and had a priory, with a castle, long since demolished, on a craggy rock, whence it took the name. The town is about three furlongs in length; and the parish is famous for four medicinal springs near each other, and yet of different qualities. 1. The sweet spaw, or vitriolic well, in Knaresborough forest, three miles from the town, which was discovered in 1620. 2. The stinking or sulphureous spaw, which is used only in bathing. 3. St Mungo's, a cold bath, four miles from the town. 4. The dropping well, which is in the town, and the most noted petrifying spring in England, so called by reason of its dropping from the spongy rock hanging over it. The ground which receives it, before it joins the well, is, for 12 yards long, become a solid rock. From the well it runs into the Nid, where the spring water has made a rock that stretches some yards into the river. The adjacent fields are noted for liquorice, and a soft yellow marl which is rich manure. The town is governed by a bailiff. Its baths are less frequented since Scarborough Spaw has been resorted to. It has a good market and six fairs. Here is a stone bridge over the river, near one end of which is a cell dug out of the rock, and called *St Robert's Chapel*. The number of inhabitants in 1811 was 4234.

KNAPDALE, one of the divisions of Argyleshire in Scotland. It is parted from Cowal on the east by Lochfyn; bounded by Kintyre on the south, by Lorn on the north, by Braidalbin on the north-east, and on the west by the Hebrides. Its length from north to south does not exceed 20 miles, and the breath in some places may amount to 13. It is joined to Kintyre by a neck of land not above a mile broad, over which the country people draw their boats, to avoid sailing round Kintyre. This part of Knapdale abounds with lakes, some of them containing little islands, on which there are castles belonging to different proprietors. The grounds are more adapted for pasturage than grain; but that on the side of Lochow is fruitful in both.

KNAPSACK, in a military sense, a rough leather bag which a soldier carries on his back, and which contains all his necessaries. Square knapsacks are most convenient; and should be made with a division to hold the shoes, black ball and brushes, separate from the linen. White goat-skins are the best.

KNAVE, an old Saxon word, which had at first a sense of simplicity and innocence, for it signified a *boy*: Sax. *cnapa*, whence a *knave child*, i. e. a boy, distinguished from a girl, in several old writers; afterwards it was taken for a servant boy, and at length for any servant man. Also it was applied to a minister or officer that bore the shield or weapon of his superior; as *field knapa*, whom the Latins call *armiger*, and the French *escuyer*, 14 Edw. III. c. 3. And it was sometimes of old made use of as a titular addition; as *Joannes C. filius Willielmi C. de Derby, knave*, &c. 22 Hen. VII.

Knave || Knee.

VII. c. 37. The word is now perverted to the hardest meaning, viz. *a false deceitful fellow*.

KNAVESHIP, in *Scots Law*, one of the names of the small duties payable in thirlage to the miller's servants, called *sequels*.

KNAUTIA, a genus of plants belonging to the tetrandia class, and in the natural method ranking under the 48th order, *Aggregatæ*. See BOTANY *Index*.

KNEE, in *Anatomy*, the articulation of the thigh and leg bones. See ANATOMY, N° 59.

KNEE, in a ship, a crooked piece of timber, having two branches or arms, and generally used to connect the beams of a ship with her sides or timbers.

The branches of the knees form an angle of greater or smaller extent, according to the mutual situation of the pieces which they are designed to unite. One branch is securely bolted to one of the deck beams, whilst the other is in the same manner attached to a corresponding timber in the ship's side, as represented by E in the plate of *MIDSHIP Frame*.

Besides the great utility of knees in connecting the beams and timbers into one compact frame, they contribute greatly to the strength and solidity of the ship, in the different parts of her frame to which they are bolted; and thereby enable her with greater firmness to resist the effects of a turbulent sea.

In fixing of these pieces, it is occasionally necessary to give an oblique direction to the vertical or side branch, in order to avoid the range of an adjacent gunport, or because the knee may be so shaped as to require this disposition; it being sometimes difficult to procure so great a variety of knees as may be necessary in the construction of a number of ships of war.

In France, the scarcity of these pieces has obliged their shipwrights frequently to form their knees of iron.

Keees are either said to be *lodging* or *hanging*. The former are fixed horizontally in the ship's frame, having one arm bolted to the beam, and the other across two or three timbers, as represented in the Deck, Plate CLXIX. The latter are fixed vertically, as we have described above. See also *SHIP-Building*, DECK, and *MIDSHIP Frame*.

KNEE of the Head, a large flat piece of timber, fixed edgewise upon the fore part of a ship's stem, and supporting the ornamental figure or image placed under the bowsprit. See *SHIP-Building*.

The knee of the head, which may properly be defined a continuation of the stem, as being prolonged from the stem forwards, is extremely broad at the upper part, and accordingly composed of several pieces united into one, YY (*Pieces of the Hull, in SHIP-Building* Plates). It is let into the head, and secured to the ship's bows by strong knees fixed horizontally upon both, and called *the cheeks of the head*. The heel of it is fastened to the upper end of the fore foot; and it is fastened to the stem above by a knee, called a *standard*, expressed by & in the plate.

Besides supporting the figure of the head, this piece is otherwise useful, as serving to secure the boom or bumkin, by which the fore tack is extended to windward; and by its great breadth, preventing the ship from falling to leeward when close hauled so much as she would otherwise do. It also affords a greater security to the bowsprit, by increasing the angle of the hob-stay, so as to make it act more perpendicularly on the bowsprit.

Knee || Knight.

The *knee of the head* is a phrase peculiar to shipwrights; as this piece is always called the *cut-water* by seamen, if we except a few, who, affecting to be wiser than their brethren, have adopted this expression, probably on the presumption that the other is a cant phrase or vulgarism.

Carling KNEES, in a ship, those timbers which extend from the ship to the hatchway, and bear up the deck on both sides.

KNELLER, SIR GODFREY, a painter, whose fame is well established in these kingdoms. He was born at Lubeck in 1648; and received his first instructions in the school of Rembrandt, but became afterwards a disciple of Ferdinand Bol. When he had gained as much knowledge as that school afforded him, he travelled to Rome, where he fixed his particular attention on Titian and the Caracci. He afterwards visited Venice, and distinguished himself so effectually in that city by his historical pictures and portraits of the noble families there, that his reputation became considerable in Italy. By the advice of some friends he came at last to England, where it was his good fortune to gain the favour of the duke of Monmouth: by his recommendation, he drew the picture of King Charles II. more than once; who was so taken with his skill in doing it, that he used to come and sit to him at his house in Covent-Garden piazza. The death of Sir Peter Lely left him without a competitor in England, and from that time his fortune and fame were thoroughly established. No painter could have more incessant employment, and no painter could be more distinguished by public honour. He was state painter to Charles II. James II. William III. Queen Anne, and George I. equally esteemed and respected by them all: the emperor Leopold made him a knight of the Roman empire, and King George I. created him a baronet. Most of the nobility and gentry had their likenesses taken by him, and no painter excelled him in a sure outline, or in the graceful disposition of his figures: his works were celebrated by the best poets in his time. He built himself an elegant house at Whitton near Hampton Court, where he spent the latter part of his life; and died in 1726.

KNIFE, a well known instrument, made for cutting, and adapted in form to the uses for which it is designed.

Knives are said to have been first made in England in 1563, by one Matthews, on Fleet Bridge, London. The importation of all sorts of knives is prohibited.

KNIGHT (*eques*), among the Romans, a person of the second degree of nobility, following immediately that of the senators. See *EQUESTRIAN Order*, and EQUITES.

KNIGHT, (or *Cnecht*, Germ.) in feodal history, was originally an appellation or title given by the ancient Germans to their youth after being admitted to the privilege of bearing arms.

The passion for arms among the Germanic states, as described by Dr Stuart *, was carried to extremity. It was amidst scenes of death and peril that the young were educated: It was by valour and feats of prowess that the ambitious signalized their manhood. All the honours

* *View of Society in Europe*, P. 46.

Knight. honours they knew were allotted to the brave. The sword opened the path to glory. It was in the field that the ingenious and the noble flattered most their pride, and acquired an ascendency. The strength of their bodies, and the vigour of their councils, surrounded them with warriors, and lifted them to command.

But, among these nations, when the individual felt the call of valour, and wished to try his strength against an enemy, he could not of his own authority take the lance and the javelin. The admission of their youth to the privilege of bearing arms, was a matter of too much importance to be left to chance or their own choice. A form was invented by which they were advanced to that honour.

The council of the district, or of the canton to which the candidate belonged, was assembled. His age and his qualifications were inquired into; and if he was deemed worthy of being admitted to the privileges of a soldier, a chieftain, his father or one of his kindred, adorned him with a shield and the lance. In consequence of this solemnity, he prepared to distinguish himself; his mind opened to the cares of the public; and the domestic concerns, or the offices of the family from which he had sprung, were no longer the objects of his attention. To this ceremony, so simple and so interesting, the institution of *knighthood* is indebted for its rise.

Knighthood, however, as a system known under the denomination of CHIVALRY, is to be dated only from the 11th century. All Europe being reduced to a state of anarchy and confusion on the decline of the house of Charlemagne, every proprietor of a manor or lordship became a petty sovereign; the mansion house was fortified by a moat, defended by a guard, and called a *castle*. The governor had a party of 700 or 800 men at his command; and with these he used frequently to make excursions, which commonly ended in a battle with the lord of some petty state of the same kind, whose castle was then pillaged, and the women and treasures borne off by the conqueror. During this state of universal hostility, there were no friendly communications between the provinces, nor any high roads from one part of the kingdom to another: the wealthy traders, who then travelled from place to place with their merchandise and their families, were in perpetual danger; the lord of almost every castle extorted something from them on the road; and at last, some one, more rapacious than the rest, seized upon the whole of the cargo, and bore off the women for his own use.

Thus castles became the warehouses of all kinds of rich merchandise, and the prisons of the distressed females, whose fathers or lovers had been plundered or slain, and who being therefore seldom disposed to take the thief or murderer into favour, were in continual danger of a rape.

But as some are always distinguished by virtue in the most general defection, it happened that many lords insensibly associated to repress these sallies of violence and rapine, to secure property, and protect the ladies. Among these were many lords of great fiefs; and the association was at length strengthened by a solemn vow, and received the sanction of a religious ceremony. As the first knights were men of the highest rank, and the largest possessions, such having most to lose, and the least temptation to steal, the fraternity was regarded with a kind of reverence, even by those against whom it was formed. Admission into the order was deemed the highest honour: many extraordinary qualifications were required in a candidate, and many new ceremonies were added at his creation. After having fasted from sunrise, confessed himself, and received the sacrament, he was dressed in a white tunic, and placed by himself at a side-table, where he was neither to speak, nor smile, nor to eat: while the knights and ladies, who were to perform the principal parts of the ceremony, were eating, drinking, and making merry at the great table. At night his armour was conveyed to the church where the ceremony was performed; and here having watched it till the morning, he advanced with his sword hanging about his neck, and received the benediction of the priest. He then kneeled down before the lady who was to put on his armour, who being assisted by persons of the first rank, buckled on his spurs, put a helmet on his head, and accoutred him with a coat of mail, a cuirass, bracelets, cuisses, and gauntlets. Knight.

Being thus armed cap-a-pee, the knight who dubbed him struck him three times over the shoulder with the flat side of his sword, in the name of God, St Michael, and St George. He was then obliged to watch all night in all his armour, with his sword girded, and his lance in his hand. From this time the knight devoted himself to the redress of those wrongs which "patient merit of the unworthy takes;" to secure merchants from the rapacious cruelty of banditti, and women from ravishers to whose power they were by the particular confusion of the times continually exposed.

From this view of the origin of chivalry, it will be easy to account for the castle, the moat, and the bridge, which are found in romances; and as to the dwarf, he was a constant appendage to the rank and fortune of those times, and no castle therefore could be without him. The dwarf and buffoon were then introduced to kill time, as the card-table is at present. It will also be easy to account for the multitude of captive ladies whom the knights, upon seizing a castle, set at liberty; and for the prodigious quantities of useless gold and silver vessels, rich stuffs, and other merchandise, with which many apartments in these castles are said to have been filled.

The principal lords who entered into the confraternity of knights, used to send their sons to each other to be educated, far from their parents, in the mystery of chivalry. These youths, before they arrived at the age of 21, were called *bachelors*, or *bas chevaliers*, inferior knights, and at that age were qualified to receive the order.

So honourable was the origin of an institution, commonly considered as the result of caprice and the source of extravagance; but which, on the contrary, rose naturally from the state of society in those times, and had a very serious effect in refining the manners of the European nations. Valour, humanity, courtesy, justice, honour, were its characteristics: and to these was added religion; which, by infusing a large portion of enthusiastic zeal, carried them all to a romantic excess, wonderfully suited to the genius of the age,

Knight. and productive of the greatest and most permanent effects both upon policy and manners. War was carried on with less ferocity, when humanity, no less than courage, came to be deemed the ornament of knighthood, and knighthood a distinction superior to royalty, and an honour which princes were proud to receive from the hands of private gentlemen: more gentle and polished manners were introduced, when courtesy was recommended as the most amiable of knightly virtues, and every knight devoted himself to the service of a lady: violence and oppression decreased, when it was accounted meritorious to check and to punish them: a scrupulous adherence to truth, with the most religious attention to fulfil every engagement, but particularly those between the sexes as more easily violated, became the distinguishing character of a gentleman, because chivalry was regarded as the school of honour, and inculcated the most delicate sensibility with respect to that point; and valour, seconded by so many motives of love, religion, and virtue, became altogether irresistible.

That the spirit of chivalry sometimes rose to an extravagant height, and had often a pernicious tendency, must however be allowed. In Spain, under the influence of a romantic gallantry, it gave birth to a series of wild adventures which have been deservedly ridiculed: in the train of Norman ambition, it extinguished the liberties of England, and deluged Italy in blood; and at the call of superstition, and as the engine of papal power, it desolated Asia under the banner of the cross. But these ought not to be considered as arguments against an institution laudable in itself, and necessary at the time of its foundation; and those who pretend to despise it, the advocates of ancient barbarism and ancient rusticity, ought to remember, that chivalry not only first taught mankind to carry the civilities of peace into the operations of war, and to mingle politeness with the use of the sword; but roused the soul from its lethargy, invigorated the human character even while it softened it, and produced exploits which antiquity cannot parallel. Nor ought they to forget, that it gave variety, elegance, and pleasure, to the intercourse of life, by making women a more essential part of society; and is therefore entitled to our gratitude, though the point of honour, and the refinements in gallantry, its more doubtful effects, should be excluded from the improvement of modern manners. For,

To illustrate this topic more particularly, we may observe, that women, among the ancient Greeks and Romans, seem to have been considered merely as objects of sensuality, or of domestic conveniency: they were devoted to a state of seclusion and obscurity, had few attentions paid them, and were permitted to take as little share in the conversation as in the general commerce of life. But the northern nations, who paid a kind of devotion to the softer sex, even in their native forests, had no sooner settled themselves in the provinces of the Roman empire, than the female character began to assume new consequence. Those fierce barbarians, who seemed to thirst only for blood, who involved in one undistinguishing ruin the monuments of ancient grandeur and ancient ingenuity, and who devoted to the flames the knowledge of ages, always forbore to offer any violence to the women. They brought along with them the respectful gallantry of the north, which had power even to restrain their savage ferocity: and they introduced into the west of Europe a generosity of sentiment, and a complaisance toward the ladies, to which the most polished nations of antiquity were strangers.—These sentiments of generous gallantry were fostered by the institution of chivalry, which lifted woman yet higher in the scale of life. Instead of being nobody in society, she became his *primum mobile*. Every knight devoting himself to danger, declared himself the humble servant of some lady, and that lady was often the object of his love. Her honour was supposed to be intimately connected with his, and her smile was the reward of his valour: for her he attacked, for her he defended, and for her he shed his blood. Courage, animated by so powerful a motive, lost sight of every thing but enterprise: incredible toils were cheerfully endured, incredible actions were performed, and adventures seemingly fabulous were more than realized. The effect was reciprocal. Women, proud of their influence, became worthy of the heroism which they had inspired: they were not to be approached but by the high minded and the brave; and men then could only be admitted to the bosom of the chaste fair, after proving their fidelity and affection by years of perseverance and of peril. Knight.

Again, As to the change which took place in the operations of war, it may be observed, that the perfect hero of antiquity was superior to fear, but he made use of every artifice to annoy his enemy: impelled by animosity and hostile passion, like the savage in the American woods, he was only anxious of attaining his end, without regarding whether fraud or force were the means. But the true knight or modern hero of the middle ages, who seems in all his rencounters to have had his eye on the judicial combat or judgment of God, had an equal contempt for stratagem and danger. He disdained to take advantage of his enemy: he desired only to see him, and to combat him upon equal terms, trusting that heaven would declare in behalf of the just; and as he professed only to vindicate the cause of religion, of injured beauty, or oppressed innocence, he was further confirmed in this enthusiastic opinion by his own heated imagination. Strongly persuaded that the decision must be in his favour, he fought as if under the influence of divine inspiration rather than of military ardour. Thus the system of chivalry, by a singular combination of manners, blended the heroic and sanctified characters, united devotion and valour, zeal and gallantry, and reconciled the love of God and of the ladies.

Chivalry flourished most during the time of the croisades. From these holy wars it followed, that new fraternities of knighthood were invented: hence the knights of the Holy Sepulchre, the Hospitallers, Templars, and an infinite number of religious orders. Various other orders were at length instituted by sovereign princes: the Garter, by Edward III. of England; the Golden Fleece, by Philip the Good, duke of Burgundy; and St Michael, by Louis XI. of France. From this time ancient chivalry declined to an empty name; when sovereign princes established regular companies in their armies, knights bannerets were no more, though it was still thought an honour

Knight. to be dubbed by a great prince or victorious hero; and all who professed arms without knighthood assumed the title of *esquire*.

There is scarce a prince in Europe that has not thought fit to institute an order of knighthood; and the simple title of *knight*, which the kings of Britain confer on private subjects, is a derivation from ancient chivalry, although very remote from its source. See *Knight-Bachelor*.

Knight Service (*servitium militare*, and in law French *chivalry*); a species of Tenure, the origin and nature of which are explained under the articles Chivalry, and *Feodal System*, N° 13—21.

The knights produced by this tenure differed most essentially from the knights described in the preceding article; though the difference seems not to have been accurately attended to by authors (A). The one class of knights was of a high antiquity: the other was not heard of till the invention of a fee. The adorning with arms and the blow of the sword made the act of the creation of the ancient knight; the new knight was constituted by an investment in a piece of land. The former was the member of an order of dignity which had particular privileges and distinctions; the latter was the receiver of a feudal grant. Knighthood was an honour; knight service a tenure. The first communicated splendour to an army; the last gave it strength and numbers.—The knight of honour might serve in any station whatever; the knight of tenure was in the rank of a soldier.—It is true, at the same time, that every noble and baron were knights of tenure, as they held their lands by knight service. But the number of fees they possessed, and their creation into rank, separated them widely from the simple individuals to whom they gave out grants of their lands, and who were merely the knights of tenure. It is no less true, that the sovereign, without conferring nobility, might give even a single fee to a tenant; and such vassals *in capite* of the crown, as well as the vassals of single fees from a subject, were the mere knights of tenure. But the former, in respect of their holding from the crown, were to be called to take upon themselves the knighthood of honour; a condition in which they might rise from the ranks, and be promoted to offices and command. And as to the vassals *in capite* of the crown who had many fees, their wealth of itself sufficiently distinguished them beyond the state of the mere knights of tenure. In fact, they possessed an authority over men who were of this last description; for, in proportion to their lands were the fees they gave out and the knights they commanded. Knight.

By the tenure of knight service the greatest part of the lands in England were holden, and that principally of the king *in capite*, till the middle of the last century; and which was created, as Sir Edward Coke expressly testifies, for a military purpose, viz. for defence of the realm by the king's own principal subjects, which was judged to be much better than to trust to hirelings or foreigners. The description here given is that of knight service proper, which was to attend the king in his wars. There were also some *Blackst. Commentaries.*

(A) "The terms *knight* and *chivaler* (Dr Stuart † observes), denoted both the knight of *honour* and knight of *tenure*; and *chivalry* was used to express both *knighthood* and *knight-service*. Hence it has proceeded, that these persons and these states have been confounded. Yet the marks of their difference are so strong and pointed, that one must wonder that writers should mistake them. It is not, however, mean and common compilers only who have been deceived. Sir Edward Coke, notwithstanding his distinguishing head, is of this number. When estimating the value of the knight's fee at 20l. per annum, he appeals to the statute *de militibus*, and 1 Ed. II. and, by the sense of his illustration, he conceives, that the knights alluded to there were the same with the possessors of knights fees: and they, no doubt, had knights fees: but a knight's fee might be enjoyed not only by the tenants *in capite* of the crown, but by the tenants of a vassal, or by the tenants of a sub-vassal. Now, to these the statute makes no allusion. It did not mean to annex knighthood to every landholder in the kingdom who had a knight's fee; but to encourage arms, by requiring the tenants *in capite* of the crown to take to them the dignity. He thus confounds *knighthood* and the *knight's fee*. *Coke on Littleton*, p. 69. † *View of Society in Europe*, p. 346.

"If I am not deceived, Sir William Blackstone has fallen into the same mistake, and has added to it. Speaking of the knights of honour, or the *equites aurati* from the gilt spurs they wore, he thus expresses himself: 'They are also called, in our law, *milites*, because they formed a part, or indeed the whole, of the royal army, 'in virtue of their feodal tenures; one condition of which was, that every one who held a knight's fee (which 'in Henry II.'s time amounted to 20l. per annum), was obliged to be knighted, and attend the king in his wars, 'or fined for his noncompliance. The exertion of this prerogative, as an expedient to raise money, in the reign 'of Charles I. gave great offence, though warranted by law, and the recent example of Queen Elizabeth: but 'it was, at the Restoration, together with all other military branches of the feodal law, abolished; and this kind 'of knighthood has since that time fallen into great disrepute.' Book I. ch. 12.

"After what has been said, I need hardly observe, that this learned and able writer has confounded the knight of *honour*, and the knight of *tenure*; and that the requisition to take knighthood was not made to every possessor of a knight's fee, but to the tenants of knights fees held *in capite* of the crown, who had merely a sufficiency to maintain the dignity, and were thence disposed not to take it. The idea that the whole force of the royal army consisted of knights of honour, or dubbed knights, is so extraordinary a circumstance, that it might have shown of itself to this eminent writer the source of his error. Had every soldier in the feudal army received the investiture of arms? could he wear a seal, surpass in silk and dress, use ensigns armorial, and enjoy all the other privileges of knighthood? But, while I hazard these remarks, my reader will observe, that it is with the greatest deference I dissent from Sir William Blackstone, whose abilities are the object of a most general and deserved admiration."

Knight. other species of knight service; so called, though improperly, because the service or render was of a free and honourable nature, and equally uncertain as to the time of rendering as that of knight service proper, and because they were attended with similar fruits and consequences. Such was the tenure by *grand serjeanty*, *per magnum servitium*, whereby the tenant was bound, instead of serving the king *generally* in his wars, to do some special honorary service to the king in person; as to carry his banner, his sword, or the like; or be his butler, champion, or other officer, at his coronation. It was, in most other respects, like knight service, only he was not bound to pay aid or escuage; and when tenant by knight service paid five pounds for a relief on every knight's fee, tenant by grand serjeanty paid one year's value of his land, were it much or little. Tenure by *cornage*, which was to wind a horn when the Scots or other enemies entered the land, in order to warn the king's subjects, was (like other services of the same nature) a species of grand serjeanty.

These services, both of chivalry and grand serjeanty, were all personal, and uncertain as to their quantity or duration. But the personal attendance in knight service growing troublesome and inconvenient in many respects, the tenants found means of compounding for it, by first sending others in their stead, and in process of time making a pecuniary satisfaction to the lords in lieu of it. This pecuniary satisfaction at last came to be levied by assessments, at so much for every knight's fee; and therefore this kind of tenure was called *scutagium* in Latin, or *servitium scuti; scutum* being then a well-known denomination of money: and in like manner it was called, in our Norman French *escuage;* being indeed a pecuniary instead of a military service. The first time this appears to have been taken, was in the 5 Hen. II. on account of his expedition to Toulouse; but it soon came to be so universal, that personal attendance fell quite into disuse. Hence we find in our ancient histories, that, from this period when our kings went to war, they levied scutages on their tenants, that is on all the landholders of the kingdom, to defray their expences and to hire troops: and these assessments in the time of Henry II. seem to have been made arbitrarily, and at the king's pleasure. Which prerogative being greatly abused by his successors, it became matter of national clamour; and King John was obliged to consent, by his *magna charta*, that no scutage should be imposed without consent of parliament. But this clause was omitted in his son Henry III.'s charter; where we only find, that scutages or escuage should be taken as they were used to be taken in the time of Henry II.; that is, in a reasonable and moderate manner. Yet afterwards, by statute 25 Edw. I. c. 5. and 6. and many subsequent statutes, it was enacted, that the king should take no aids or tasks but by the common assent of the realm. Hence it is held in our old books, that escuage or scutage could not be levied but by consent of parliament; such scutages being indeed the ground-work of all succeeding subsidies, and the land tax of later times.

Since, therefore, escuage differed from knight service in nothing but as a compensation differs from actual service, knight service is frequently confounded with it. And thus Littleton must be understood, when he tells us, that tenant by homage, fealty, and escuage, was tenant by knight service; that is, that this tenure (being subservient to the military policy of the nation) was respected as a tenure in chivalry. But as the actual service was uncertain, and depended upon emergencies, so it was necessary that this pecuniary compensation should be equally uncertain, and depend on the assessments of the legislature suited to these emergencies. For had the escuage been a settled invariable sum, payable at certain times, it had been neither more nor less than a mere pecuniary rent; and the tenure, instead of knight service, would have then been of another kind, called SOCCAGE. Knight.

By the degenerating of knight service, or personal military duty, into escuage or pecuniary assessments, all the advantages (either promised or real) of the feodal constitutions were destroyed, and nothing but the hardships remained. Instead of forming a national militia composed of barons, knights, and gentlemen, bound by their interest, their honour, and their oaths, to defend their king and country, the whole of this system of tenures now tended to nothing else but a wretched means of raising money to pay an army of occasional mercenaries. In the mean time the families of all our nobility and gentry groaned under the intolerable burdens (which in consequence of the fiction adopted after the conquest) were introduced and laid upon them by the subtlety and finesse of the Norman lawyers. For, besides the scutages to which they were liable in defect of personal attendance, which, however, were assessed by themselves in parliament, they might be called upon by the king or lord paramount for *aids*, whenever his eldest son was to be knighted, or his eldest daughter married; not to forget the ransom of his own person. The heir, on the death of his ancestor, if of full age, was plundered of the first emoluments arising from his inheritance, by way of *relief* and *primer seisin:* and if under age, of the whole of his estate during infancy. And then, as Sir Thomas Smith very feelingly complains, "when he came to his own, after he was out of *wardship*, his woods decayed, houses fallen down, stock wasted and gone, lands let forth and ploughed to be barren," to make amends, he was yet to pay half a year's profits as a fine for suing out his *livery;* and also the price or value of his *marriage*, if he refused such wife as his lord and guardian had bartered for, and imposed upon him; or twice that value, if he married another woman. Add to this, the untimely and expensive honour of *knighthood*, to make his poverty more completely splendid. And when, by these deductions, his fortune was so shattered and ruined, that perhaps he was obliged to sell his patrimony, he had not even that poor privilege allowed him, without paying an exorbitant fine for a *license* of *alienation*.

A slavery so complicated and so extensive as this, called aloud for a remedy in a nation that boasted of her freedom. Palliatives were from time to time applied by successive acts of parliaments, which assuaged some temporary grievances. Till at length the humanity of King James I. consented, for a proper equivalent, to abolish them all, though the plan then proceeded not to effect; in like manner, as he had formed a scheme, and began to put it in execution, for removing

Order of the Garter

Star

Jewel

Order of the Bath

Star

Jewel

Order of the Thistle

Star

Jewel

Order of St. Patrick

Star

Jewel

Baronet of Nova Scotia

Baronet of England

Knight. ing the feodal grievances of heritable jurisdictions in Scotland, which has since been pursued and effected by the statute 20 Geo. II. c. 43. King James's plan for exchanging our military tenures seems to have been nearly the same as that which has been since pursued; only with this difference, that by way of compensation for the loss which the crown and other lords would sustain, an annual fee-farm rent should be settled and inseparably annexed to the crown, and assured to the inferior lords, payable out of every knight's fee within their respective seignories. An expedient seemingly much better than the hereditary excise which was afterwards made the principal equivalent for these concessions. For at length the military tenures, with all their heavy appendages, were destroyed at one blow by the statute 12 Car. II. c. 24. which enacts, "that the court of ward or liveries, and all wardships, liveries, primer seisins, and ousterlemains, values and forfeitures of marriages, by reason of any tenure of the king or others, be totally taken away. And that all fines for alienations, tenures by homage, knights service, and escuage, and also aids for marrying the daughter or knighting the son, and all tenures of the king *in capite*, be likewise taken away. And that all sorts of tenures, held of the king or others, be turned into free and common soccage: save only tenures in frankalmoign, copyholds, and the honorary services (without the slavish part) of grand serjeanty." A statute which was a greater acquisition to the civil property of this kingdom than even *magna charta* itself: since that only pruned the luxuriances that had grown out of the military tenures, and thereby preserved them in vigour: but the statute of King Charles extirpated the whole. See CHIVALRY, SUPPLEMENT.

KNIGHTS-Errant. During the prevalence of chivalry, the ardour of redressing wrongs seized many knights so powerfully, that, attended by esquires, they wandered about in search of objects whose misfortunes and misery required their assistance and succours. And as ladies engaged more particularly their attention, the relief of unfortunate damsels was the achievement they most courted. This was the rise of knights-errant, whose adventures produced romance. These were originally told as they happened. But the love of the marvellous came to interfere; fancy was indulged in her wildest exaggerations; and poetry gave her charms to the most monstrous fictions, and to scenes the most unnatural and gigantic. See KNIGHT.

KNIGHT-Bachelor. See BACHELOR.

KNIGHT-Baronet. See BARONET.

KNIGHTS of the Shire, or *Knights of Parliament*, are two gentlemen of worth, chosen on the king's writ in *pleno comitatu*, by such of the freeholders of every county as can expend 40s. per annum, to represent such county in parliament. These, when every man who held a knight's fee *in capite* of the crown was customarily constrained to be a knight, were of necessity to be *milites gladio cincti*, for so the writ runs to this day; but now custom admits esquires to be chosen to this office. They must have at least 500l. per annum; and their expences are to be defrayed by the county, though this be seldom now required.

KNIGHT-Marshal, an officer in the king's household, who has jurisdiction and cognizance of any transgression within the king's household and verge; as also of contracts made there, whereof one of the house is party. Knight, Knighthood.

KNIGHT-Fish. See EQUES, ICHTHYOLOGY *Index*.

KNIGHTS, in a ship, two short thick pieces of wood, commonly carved like a man's head, having four shivers in each, three for the haulyards, and one for the top to run in: one of them stands fast bolted on the beams abaft the foremast, and is therefore called the *fore-knight;* and the other, standing abaft the mainmast, is called the *main-knight.*

KNIGHTHOOD, a military order or honour, or a mark or degree of ancient nobility, or reward of personal virtue and merit.

There are four kinds of knighthood; military, regular, honorary, and social.

Military KNIGHTHOOD, is that of the ancient knights, who acquired it by high feats of arms. They are called *milites*, in ancient charters and titles, by which they were distinguished from mere bachelors, &c. These knights were girt with a sword, and wore a pair of gilt spurs; whence they were called *equites aurati.*

Knighthood is not hereditary, but acquired. It does not come into the world with a man like nobility; nor can it be revoked. The sons of kings, and kings themselves, with all other sovereigns, heretofore had knighthood conferred on them as a mark of honour. They were usually knighted at their baptism or marriage, at their coronation, before or after a battle, &c.

Regular KNIGHTHOOD, is applied to all military orders which profess to wear some particular habit, to bear arms against the infidels, to succour and assist pilgrims in their passage to the Holy Land, and to serve in hospitals where they should be received: such were the knights templars, and such still are the knights of Malta, &c.

Honorary KNIGHTHOOD, is that which princes confer on other princes, and even on their own great ministers and favourites; such are knights of the Garter, Bath, St Patrick, Nova Scotia, Thistle, &c. See these articles; and for a representation of their different insignia, see Plate CCLXXXVIII.

Social KNIGHTHOOD, is that which is not fixed nor confirmed by any formal institution, nor regulated by any lasting statutes; of which kind there have many orders been erected on occasion of factions, of tilts and tournaments, masquerades, and the like.

The abbot Bernardo Justiniani, at the beginning of his History of Knighthood, gives us a complete catalogue of the several orders: according to this computation, they are in number 92. Favin has given us two volumes of them under the title of *Theatre d'Honneur et de Chevalerie.* Menenius has published *Deliciæ Equestrium Ordinum*, and Andr. Mendo has written *De Ordinibus Militaribus.* Beloi has traced their original; and Geliot, in his Armorial Index, has given us their institution. To these may be added, Father Menestrier *de la Chevalerie Ancienne et Moderne*, Michieli's *Tresor Militaire*, Caramuel's *Theologia Regolare*, Miræus's *Origines Equestrium sive Militarium Ordinum:* but above all, Justinian's *Historie Chronologiche dell' Origine de gl' Ordine Militari, e di tutte le Religioni Cavaleresche;* the edition which is fullest is that of Venice in 1692, in two vols folio.

Knightlow Hill Knots.

KNIGHTLOW HILL or CROSS, which gives name to a hamlet in Warwickshire, stands in the road from Coventry to London, at the entrance of Dunsmore Heath. About 40 towns in this hamlet, which are specified by Dugdale, are obliged, on the forfeiture of 30s. and a white bull, to pay a certain rent to the lord of the hamlet, called *wroth-money*, or *swarf-penny;* which must be deposited every Martinmas day in the morning at this cross before sunrise; when the party paying it must go thrice about the cross, and say the wroth-money, and then lay it in the hole of the said cross before good witness.

KNIGHTON, a well built town of Radnorshire in South Wales, 155 miles from London. It is pleasantly situated on an elevation rising from a small river, which divides this part of Wales from Shropshire. It carries on a considerable trade, and has a market and a fair, with about 952 inhabitants.

KNIGHTSBRIDGE, a village of Middlesex, and the first village from London on the great western road. It lies in the parishes of St Margaret's Westminster, and St George by Hanover Square; and has a chapel, which is nevertheless independent. At the entrance of it from London stands that noble infirmary for sick and wounded, called *St George's Hospital*, erected and maintained by the contributions of our nobility and gentry, of whom there are no less than 300 governors. In the centre of this village, there is a fabric lately erected, where is carried on one of the most considerable manufactures in England for painting floor-cloths, &c.

KNOCTOPHER, a borough and market town of Ireland, in the county of Kilkenny and province of Leinster, 63 miles from Dublin. Before the union, this town returned two members to the Irish parliament.

KNOLL, a term used in many parts of the kingdom for the top of a small hill, or for the hill itself.

KNOLLES, RICHARD, was born in Northamptonshire, about the middle of the 16th century, and educated at Oxford, after which he was appointed master of the free-school at Sandwich in Kent. He composed *Grammaticæ Latinæ, Græcæ, et Hebraicæ, compendium, cum radicibus*, London 1606; and sent many excellent scholars to the universities. He also spent 12 years in compiling a history of the Turks; which was first printed in 1610. It is called, *The general history of the Turks, from the first beginning of that nation to the rising of the Ottoman family*, &c. He died in 1610, and this history has been since continued by several hands: the best continuation is that by Paul Ricaut consul at Smyrna, folio, London, 1680. Knolles wrote also, "The lives and conquests of the Ottoman kings and emperors to the year 1610;" which was not printed till after his death in 1621, to which time it was continued by another hand; and lastly, "A brief discourse of the greatness of the Turkish empire, and wherein the greatness of the strength thereof consisteth," &c.

KNOT, a part of a tree, from which shoot out branches, roots, or even fruit. The use of the knots is, to strengthen the stem; they serve also as searces, to filtrate, purify, and refine the juices raised up for the nourishment of the plant.

KNOTS of a Rope, among seamen, are distinguished into three kinds, viz. whole knot, that made so with the lays of a rope that it cannot slip, serving for sheets, tacks, and stoppers: bowline knot, that so firmly made and fastened to the cringles of the sails, that they must break or the sail split before it slips: and sheep-shank knot, that made by shortening a rope without cutting it, which may be presently loosened, and the rope not the worse for it. Knots Knox.

KNOTS of the Log-line, at sea, are the divisions of it. See the article LOG.

KNOT. See TRINGA, ORNITHOLOGY *Index*.

KNOT-Grass, or *Bistort*. See POLYGONUM, BOTANY *Index*.

KNOTTESFORD, a town of Cheshire, near the Mersey, 184 miles from London, is divided into the upper and lower towns by a rivulet called *Bicken*. In the former is the church; and in the latter is the market and town-house. Population 2358 in 1811.

KNOTTINGLEY, a town in the west riding of Yorkshire, on the Aire near Ferrybridge, is noted for its trade in lime. The stones of which it is made are dug up plentifully at Elmet, and here burnt; from whence it is conveyed at certain seasons in great quantities to Wakefield, Sandal, and Standbridge, for sale, and so carried into the western parts of the county for manure.

KNOUT, the name of a punishment inflicted in Russia, with a kind of whip called *knout*, and made of a long strap of leather prepared for this purpose. With this whip the executioners dexterously carry off a slip of skin from the neck to the bottom of the back laid bare to the waist, and repeating their blows, in a little while rend away all the skin of the back in parallel stripes. In the common knout the criminal receives the lashes suspended on the back of one of the executioners: but in the great knout, which is generally used on the same occasions as racking on the wheel in France, the criminal is raised into the air by means of a pulley fixed to the gallows, and a cord fastened to the two wrists tied together; a piece of wood is placed between his two legs also tied together; and another of a crucial form under his breast. Sometimes his hands are tied behind over his back; and when he is pulled up in this position, his shoulders are dislocated. The executioners can make this punishment more or less severe; and it is said, are so dexterous, that when a criminal is condemned to die, they can make him expire at pleasure either by one or several lashes.

KNOWLEDGE, is defined by Mr Locke to be the perception of the connexion and agreement or disagreement and repugnancy of our ideas. See METAPHYSICS and LOGIC.

KNOX, JOHN, greatly distinguished by the part he took in the reformation in Scotland, was born in 1505, at Gifford near Haddington, and educated at the university of St Andrew's, where he took a degree in arts, and commenced teacher very early in life. At this time the new religion of Martin Luther was but little known in Scotland; Mr Knox therefore at first was a zealous Roman Catholic: but attending the sermons of a certain Black friar, named *Guialliam*, he began to waver in his opinions; and afterwards conversing with the famous Wishart, who in 1544 came to Scotland with the commissioners sent by Henry VIII. he renounced the Romish religion, and became a zealous reformer. Being

Knox.

ing appointed tutor to the sons of the lairds of Ormistoun and Longniddery, he began to instruct them in the principles of the Protestant religion; and on that account was so violently persecuted by the bishop of St Andrew's, that with his two pupils he was obliged in the year 1547 to take shelter in the castle of that place. But the castle was besieged and taken by 21 French galleys. He continued a prisoner on board a galley two years, namely, till the latter end of the year 1549; when, being set at liberty, he landed in England, and having obtained a license, was appointed preacher, first at Berwick, and afterwards at Newcastle. Strype conjectures that in 1552 he was appointed chaplain to Edward VI. He certainly obtained an annual pension of 40l. and was offered the living of All-hallows in London; which he refused, not choosing to conform to the liturgy.

Soon after the accession of Queen Mary, he retired to Geneva; whence, at the command of John Calvin, he removed to Frankfort, where he preached to the exiles: but a difference arising on account of his refusing to read the English liturgy, he went back to Geneva; and from thence in 1555 returned to Scotland, where the reformation had made considerable progress during his absence. He now travelled from place to place, preaching and exhorting the people with unremitting zeal and resolution. About this time (1556), he wrote a letter to the queen regent, earnestly entreating her to hear the Protestant doctrine; which letter she treated with contempt. In the same year the English Calvinists at Geneva, invited Mr Knox to reside among them. He accepted their invitation. Immediately after his departure from Scotland, the bishop summoned him to appear, and he not appearing, condemned him to death for heresy, and burned his effigy at the cross of Edinburgh.

Our reformer continued abroad till the year 1559, during which time he published his "First Blast against the monstrous Regiment of Women." Having now returned to Scotland, he resumed the great work of reformation with his usual ardour, and was appointed minister at Edinburgh. In 1561 Queen Mary arrived from France. She, it is well known, was bigotted to the religion in which she had been educated; and on that account was exposed to continual insults from her reformed subjects. Mr Knox himself frequently insulted her from the pulpit; and when admitted to her presence, regardless of her sex, her beauty, and her high rank, behaved to her with a most unjustifiable freedom. In the year 1571 our reformer was obliged to leave Edinburgh, on account of the confusion and danger from the opposition to the earl of Lennox, then regent; but he returned the following year, and resumed his pastoral functions. He died at Edinburgh in November 1572, and was buried in the churchyard of St Giles's in that city.—His History of the Reformation was printed with his other works at Edinburgh in 1584, 1586, 1644, and 1732. He published many other pieces; and several more are preserved in Calderwood's History of the Church of Scotland. He left also a considerable number of manuscripts, which in 1732 were in the possession of Mr Wodrow, minister of Eastwood.

As to his character, it is easily understood, notwithstanding the extreme dissimilitude of the two portraits drawn by Popish and Calvinistical pencils. According to the first, he was a devil; according to the latter, an angel. The following character is drawn by Dr Robertson. "Zeal, intrepidity, disinterestedness, were virtues that he possessed in an eminent degree. He was acquainted too with the learning cultivated in that age; and excelled in that species of eloquence which is calculated to rouse and to inflame. His maxims, however, were often too severe, and the impetuosity of his temper excessive. Rigid and uncomplying, he showed no indulgence to the infirmities of others. Regardless of the distinctions of rank and character, he uttered his admonitions with an acrimony and vehemence more apt to irritate than to reclaim; and this often betrayed him into indecent expressions, with respect to Queen Mary's person and conduct. Those very qualities, however, which now render his character less amiable, fitted him to be the instrument of Providence for advancing the Reformation among a fierce people, and enabled him to face dangers, and to surmount opposition, from which a person of a more gentle spirit would have been apt to shrink back. By an unwearied application to study and to business, as well as by the frequency and fervour of his public discourses, he had worn out a constitution naturally strong. During a lingering illness, he discovered the utmost fortitude; and met the approach of death with a magnanimity inseparable from his character. He was constantly employed in acts of devotion, and comforted himself with those prospects of immortality, which not only preserve good men from desponding, but fill them with exultation in their last moments. The earl of Morton, who was present at his funeral, pronounced his eulogium in a few words, the more honourable for Knox, as they came from one whom he had often censured with peculiar severity; "Here lies he who never feared the face of man."

Knox || Koei-tcheou.

KNOXIA, a genus of plants belonging to the tetrandria class; and in the natural method ranking under the 47th order, *Stellatæ*. See BOTANY *Index*.

KNUTZEN, MATTHIAS, a native of Holstein, the only person on record who openly professed and taught atheism. It is said he had about 1000 disciples in different parts of Germany. They were called *Conscienciaries*, because they asserted there is no other God, no other religion, no other lawful magistracy, but conscience, which teaches every man the three fundamental principles of the law of nature:—To hurt nobody, to live honestly, and to give every one his due. Several copies of a letter of his from Rome were spread abroad, containing the substance of his system. It is to be found entire in the last edition of Micrælius.

KOEDOE. See CAPRA.

KOEI-TCHEOU, a province of China, and one of the smallest in the empire. On the south it has Quang-si, on the east Hou-quang, on the north Se-tchuen, and Yun-nan on the west. The whole country is almost a desert, and covered with inaccessible mountains: it may justly be called the *Siberia* of China. The people who inhabit it are mountaineers, accustomed to independence, and who seem to form a separate nation: they are no less ferocious than the savage animals among which they live.—The mandarins and governors who are sent to this province are sometimes disgraced noblemen, whom the emperor does not think proper to discard entirely, either on account of their alliances, or the services

which

Koei-tcheou, Kœmpfer.

which they have rendered to the state: numerous garrisons are intrusted to their charge, to overawe the inhabitants of the country: but these troops are found insufficient, and the court despairs of being ever able thoroughly to subdue these untractable mountaineers. Frequent attempts have been made to reduce them to obedience, and new forts have from time to time been erected in their country; but the people, who are not ignorant of those designs, keep themselves shut up among their mountains, and seldom issue forth but to destroy the Chinese works or ravage their lands. Neither silk stuffs nor cotton cloths are manufactured in this province; but it produces a certain herb much resembling our hemp, the cloth made of which is used for summer dresses. Mines of gold, silver, quicksilver, and copper, are found here; of the last metal, those small pieces of money are made which are in common circulation throughout the empire.—Koei-tcheou contains 10 cities of the first class, and 38 of the second and third.

KOEMPFER, ENGELBERT, was born in 1651 at Lemgow in Westphalia. After studying in several towns, he went to Dantzick, where he gave the first public specimen of his proficiency, in a dissertation *De Majestatis Divisione*. He then went to Thorn; and from thence to the university of Cracow, where he took his degree of doctor in philosophy; after which he went to Koningsberg in Prussia, and staid there four years. He next travelled into Sweden, where he soon began to make a figure, and was appointed secretary of the embassy to the sophi of Persia. He set out from Stockholm with the presents for that emperor; and went through Aaland, Finland, and Ingermanland, to Narva, where he met Mr Fabricius the ambassador, who had been ordered to take Moscow in his way. The ambassador having ended his negociations at the Russian court, set out for Persia. During their stay, two years, at Ispahan, Dr Kœmpfer, whose curious and inquisitive disposition suffered nothing to escape him unobserved, made all the advantages possible of remaining so long in the capital of the Persian empire. The ambassador, towards the close of 1685, preparing to return into Europe, Dr Kœmpfer chose rather to enter into the service of the Dutch East India Company, in quality of chief surgeon to the fleet, then cruising in the Persian gulf. He went aboard the fleet, which, after touching at many Dutch settlements, came to Batavia in September 1689. Dr Kœmpfer here applied himself chiefly to natural history. Hence he set out for Japan, in quality of a physician to the embassy which the Dutch East India Company send once a year to the Japanese court. He quitted Japan to return to Europe in 1692. In 1694 he took his degree of doctor of physic at Leyden; on which occasion he communicated, in what are called *Inaugural Theses*, ten very singular and curious observations made by him in foreign countries. He intended to digest his memoirs into proper order; but was prevented, by being made physician to the count de Lippe. He died in 1716. His principal works are, 1. *Amœnitates Exoticæ*, in 4to; a work which includes many curious and useful particulars in relation to the civil and natural history of the countries through which he passed. 2. *Herbarium Ultra-Gangeticum*. 3. The history of Japan, in German, which is very curious and much esteemed; and for which the public is indebted to the late Sir Hans Sloane, who purchased for a considerable sum of money all our author's curiosities, both natural and artificial, as likewise all his drawings and manuscript memoirs, and prevailed with the learned Dr Scheuchzer to translate the Japanese history into English.

Kœmpfer ‖ König.

KOEMPFERIA. See KEMPFERIA.

KOENIGIA, a genus of plants belonging to the triandria class. See BOTANY *Index*.

KONGSBERG, a town of Norway, belonging to Denmark, and celebrated for its silver mines, whose produce has been considerably exaggerated by most of the travellers that have published on this subject. The town, which stretches on both sides the river Lowe, contains about 1000 houses, and including the miners 6000 inhabitants. The mines, which lie about two miles from the town, were first discovered and worked during the reign of Christian IV.; and of their present state the following account is given by Mr Coxe *. There are 36 mines now working; the deepest whereof, called *Segen-Gottes in der North*, is 652 feet perpendicular. The matrix of the ore is the *saxum* of Linnæus. The silver is extracted according to the usual process, either by smelting the ore with lead or by pounding. The pure silver is occasionally found in small grains and in small pieces of different sizes, seldom weighing more than four or five pounds. Sometimes, indeed, but extremely rare, masses of a considerable bulk have been discovered; and one in particular which weighed 409 marks, and was worth 3000 rix-dollars, or 600l. This piece is still preserved in the cabinet of curiosities at Copenhagen. Formerly these mines produced annually 350,000 rixdollars, or 70,000l; and in 1769, even 79,000l.; at present they seldom yield above from 44,000l. to 50,000l. Formerly above 4000 men were necessary for working the mines, smelting and preparing the ore; but a few years ago 2400 miners were removed to the cobalt works lately established at Fossum, and to other mines; and the number is now reduced to 2500. By these and other reductions, the expence, which was before estimated at 5760l. per month, now amounts to only 4400l. or about 52,800l. per annum. Yet even with this diminution the expences generally equal, and sometimes exceed the profits. Government, therefore, draws no other advantages from these mines, than by giving employment to so many persons, who would otherwise be incapable of gaining their livelihood, and by receiving a certain quantity of specie, which is much wanted in the present exhausted state of the finances in Denmark. For such is the deficiency of specie, that even at Kongsberg itself change for a bank note is with difficulty obtained. The miners are paid in small bank notes, and the whole expences are defrayed in paper currency. The value of 13,000 rixdollars, or 2600l. in block silver is annually sent to Copenhagen; the remainder of the ore is coined in the mint at Kongsberg, and transferred to Copenhagen. The largest piece of money now struck at Kongsberg is only eight skillings or fourpence.

* *Travels in Poland*, &c. v. 234.

KONIG, GEORGE MATTHIAS, a learned German, born at Altorf in Franconia in 1616. He became professor of poetry and of the Greek tongue there, and librarian to the university; in which last office he succeeded his father. He gave several public specimens of his learning; but is principally known for a Biographical

Konig || Koraquas.

graphical Dictionary, entitled, *Bibliotheca vetus et nova*, 4to, Altorf, 1674: which, though it is very defective, is useful to biographers. He died in 1699.

KONIGSTEIN, the capital of a county of the same name in Germany. It is 11 miles north-west of Francfort on the Maine, and 30 miles north-east of Mentz.

KONIGSTEIN, is also the name of a town in Bavaria, and of one in Saxony.

KONINGSBERG, a town of Poland, and capital of Regal Prussia, with a magnificent palace, in which is a hall 274 feet long and 59 broad without pillars to support it, and a handsome library. It is about five miles in circumference; and, including the garrison of 7000 men, contains 60,000 inhabitants. The townhouse, the exchange, and the cathedral church, are all very fine structures. The tower of the castle is exceeding high; and has 284 steps to go to the top, from whence there is a very distant prospect. There are 18 churches in all; of which 14 belong to the Lutherans, three to the Calvinists, and one to the Papists. It stands on the Pregel, a navigable river which flows from the north-western provinces of Poland, and here falls into the eastern extremity of the Frische-Haf, an inlet of the Baltic. No ships drawing more than seven feet water can pass the bar and come up to the town; so that the large vessels anchor at Pillau, a small town on the Baltic, which is the port of Koningsberg; and the merchandise is sent in smaller vessels to this place. Its trade is very considerable.—Koningsberg contains an university founded by Albert of Brandenburg. According to the original endowment there were 40 professors; but their number is now reduced to 16. Each professor receives a salary of abont 50l. per annum, which may be increased by private lectures. In 1775, the university contained 800 students, of whom 200 were lodged and boarded at the expence of the crown. There are three public libraries in the town, the royal or university library, the town library, and the *Wallenrodt library*, so called because it was given by Martien von Wallenrodt, in 1650. E. Long. 35. N. Lat. 54. 43.

KORAN, or ALCORAN. See ALCORAN and MAHOMETANISM.

KORAQUAS, a tribe of Hottentots inhabiting a district in the south of Africa, on the confines of the Nimiqua country. The people are much taller than the other Hottentots of the colonies, though they evidently appear to be descended of the same race, having the same language and customs with their neighbours the Nimiquas, who are undoubtedly of the same extraction. Like other savage tribes, the Koraquas are ever ready to pilfer, and appropriate to their own use whatever they find pleasing, or suited to their purposes. They attempted to carry off some of M. Vaillant's effects, even before his face; and he was obliged, either to watch over or deposit them in some place of safety, in order to prevent their rapacity.

The excessive dryness of the country renders springs extremely rare; but to supply this defect the inhabitants dig in the earth a kind of cisterns, to which they gradually descend by means of steps; the greatest marks of industry which M. Vaillant could discover among any of the African nations. To secure this scanty supply of water even from the birds, they are in the practice of covering the mouth of the hole with stones and the branches of trees; yet in spite of all this economy, the wells frequently become dry, in which case the horde must remove to some other quarter. This circumstance renders the Koraquas a more wandering people than any of the other western tribes. They colour their bodies differently according to whim or caprice, and it is no uncommon thing to see them vary it every day, which gives them to each other a strange appearance as if they were dressed for a masquerade.

Koraquas || Kotterus.

KOREKI, the country of the Koriacs. See the next article.

KORIACS, a people inhabiting the northern part of Kamtschatka, and all the coast of the Eastern ocean from thence to the Anadir. They are divided into the Rein-deer or Wandering Koriacs, and the Fixed Koriacs. The former lead an erratic life, in the tract bounded by the Penschinska sea to the south-east, the river Kowyma to the west, and the river Anadir to the north. They wander from place to place with their rein deer, in search of the moss, the food of those animals, which are their only wealth. They are squalid, cruel, and warlike; the terror of the Fixed Koriacs, as much as the Tschutski are of them. They never frequent the sea, nor live on fish. Their habitations are jourts, or places half sunk in the earth; and they never use balagans or summer houses elevated on posts like the Kamtschatkans. They are in their persons lean, and very short; have small heads and black hair, which they shave frequently: their faces are oval; their nose is short; their eyes are small; their mouth is large; and their beard is black and pointed, but often eradicated.—The Fixed Koriacs are likewise short; but rather taller than the others, and strongly made: the Anadir is also their boundary to the north, the ocean to the east, and the Kamtschatkans to the south. They have a few rein deer, which they use in their sledges; but neither of the tribes of Koriacs are civilized enough to apply them to the purposes of the dairy. Each speaks a different dialect of the same language: but the Fixed in most things resemble the Kamtschatkans; and, like them, live almost entirely on fish. They are timid to a high degree, and behave to their wandering brethren with the utmost submission; who call them by a name which signifies *their slaves*. These poor people seem to have no alternative: for, by reason of the scarcity of rein deer, they depend on these tyrants for the essential article of clothing.—These two nations, Mr Pennant supposes, from their features, to be the offspring of Tartars, which have spread to the east, and degenerated in size and strength by the rigour of the climate, and often by scarcity of food.

KOS, in Jewish antiquity, a measure of capacity, containing about four cubic inches: this was the cup of blessing out of which they drank when they gave thanks after solemn meals, like that of the passover.

KOTTERUS, CHRISTOPHER, was one of the three fanatics whose visions were published at Amsterdam in 1657, with the title of *Lux in tenebris*. He lived at Sprotta in Silesia, and his visions began in 1616. He fancied he saw an angel under the form of a man, who commanded him to go and declare to the magistrates, that, unless the people repented, the wrath of God would make dreadful havock. The elector palatine, whom the Protestants had declared king of Bohemia, was introduced in these visions. Kotterus

Kotterus ‖ Kouc.

waited on him at Breslaw in December 1620, and informed him of his commission. He went to several other places, and at last to the court of Brandenburg. As most of these predictions promised felicity to the elector palatine, and unhappiness to his imperial majesty, the emperor's fiscal in Silesia and Lusatia got him seized, set on the pillory, and banished the emperor's dominions. Upon this he went to Lusatia, and there lived unmolested till his death, which happened in 1647.

KOU-CHU, a Chinese shrub, which bears a great resemblance to the fig tree both in the make of its branches and the form of its leaves. From its root several twigs or shoots generally spring up, which form a kind of bush; but sometimes it consists of only one shoot. The wood of the branches of the kou-chu is soft and spongy, and covered with bark like that of the fig tree. Its leaves are deeply indented, and their colour and the texture of their fibres are exactly the same as those of the fig tree; but they are larger and thicker, and much rougher to the touch.

Grosier's *China*, vol. i. p. 486.

This tree yields a kind of milky juice, which the Chinese use for laying on gold-leaf in gilding. They make one or more incisions in the trunk, into which they insert the edges of a shell, or something else of the same kind to receive the sap. When they have extracted a sufficiency, they use it with a small brush, and delineate whatever figures they intend for the decoration of their work. They then lay on the gold-leaf, which is so strongly attracted by this liquor, that it never comes off.

KOUANIN, in the Chinese language, the name of a tutelary deity of women. The Chinese make great numbers of the figures of this deity in white porcelain, and send them to all parts of the world, as well as keep them in their own houses. The figure represents a woman with a child in her arms. The women who have no children pay a sort of adoration to these images, and suppose the deity they represent to have power to make them fruitful. The statue always represents a handsome woman very modestly attired.

KOUC, or KOECK, *Peter*, an excellent painter in the 16th century, was born at Alost, and was the disciple of Bernard Van Orley, who lived with Raphael. He went to Rome; and by studying the beautiful pieces which he found there, formed an excellent taste, and became a very correct designer. On his return to his own country, he undertook the office of directing the execution of some tapestry work after the designs of Raphael. He was afterwards persuaded by some merchants of Brussels to undertake a voyage to Constantinople; but when he came there, finding that the Turks were not allowed by their religion to draw any figure, and that there was nothing for him to do but to draw designs for tapestry, he spent his time in designing the particular prospects in the neighbourhood of Constantinople, and the manner of the Turks living; of which he has left many wooden cuts, that alone suffice to give an idea of his merit. After his return from Constantinople he settled at Antwerp, where he drew several pictures for the emperor Charles V. He was also a good architect; and, in the latter part of his life, wrote A Treatise of Sculpture, Geometry, and Perspective; and translated Vitruvius and Serliv into the Flemish tongue. He died in 1550.

Kouli-khan, Koumiss.

KOULI-KHAN, THAMAS, or *Schah Nadir*, was not the son of a shepherd, as the authors of the English Biographical Dictionary assert: his father being chief of a branch of the tribe of Affchars, and governor of a fortress erected by that people against the Turks. Upon his father's death, his uncle usurped his government, under the pretext of taking care of it during the minority of Kouli-Khan; or, more properly, young Nadir. Disgust at this affront made him commence adventurer. He entered into the service of the beglerbeg or governor of Muschada, in Khorasan; who, discovering in him strong marks of a military genius, promoted him to the command of a regiment of cavalry. In 1720, the Usbec Tartars having made an irruption into Khorasan with 10,000 men, the beglerbeg, whose whole force consisted only of 4000 horse and 2000 infantry, called a council of war, in which it was declared imprudent to face the enemy with such an inferior force: but Kouli-Khan proposed to march against the enemy, and engaged to conduct the expedition, and to be answerable for the success of it. He was accordingly made general; defeated the Tartars, and took their commander prisoner. Hossein Beglerbeg received him at his return with marks of distinction: but growing jealous of his rising fame, instead of obtaining him the rank of lieutenant-general of Khorasan, as he had promised, obtained it for another; which so exasperated Kouli-Khan, that he publicly complained of the governor's ingratitude and perfidy; who thereupon broke him, and ordered him to be punished with the bastinado so severely, that the nails of his great toes fell off. This affront occasioned his flight, and his joining a banditti of robbers (not his stealing his father's or his neighbour's sheep). The rest of his adventures are too numerous to be inserted in this work. In 1729 he was made general of Persia by Schah Thamas, and permitted to take his name *Thamas*, and that of *Khuli*, which signifies *slave*: his title therefore was *The slave of Thamas*; but he was ennobled by the addition of Khan. In 1736, he fomented a revolt against his master, for having made an ignominious peace with the Turks; and having the army at his command, he procured his deposition, and his own advancement to the throne. In 1739 he conquered the Mogul empire; and from this time growing as cruel as he was ambitious, he at length met with the usual fate of tyrants, being assassinated by one of his generals, in league with his nephew and successor, in 1747, aged sixty.

KOUMISS, a sort of wine made in Tartary, where it is used by the natives as their common beverage during the season of it, and often serves them instead of all other food. It is said to be so nourishing and salutary, that the Baschkir Tartars, who towards the end of winter are much emaciated, no sooner return in summer to the use of koumiss, than they become strong and fat. The author of "A historical description of all the nations which compose the Russian empire," says, speaking of koumiss, *Elle est fort nourissante, et peut tenir lieu de tout autre aliment. Les Baschkirs s'en trouvent très bien, elle les rend bienportans et gais; elle leur donne de l'embonpoint, et de bonne couleurs.* From the Tartars it has been borrowed by the Russians, who use it medicinally. It is made with fermented mares milk,

Koumiss. milk, according to the following recipe, communicated by Dr Grieve, in the Edinburgh Philosophical Transactions*, as he obtained it from a Russian nobleman, who went into that part of Tartary where it is made, for the sake of using it medicinally.

* Vol. i. p. 181.

"Take of fresh mares milk, of one day, any quantity; add to it a sixth part of water, and pour the mixture into a wooden vessel; use then, as a ferment, an eighth part of the sourest cows milk that can be got; but at any future preparation, a small portion of old koumiss will better answer the purpose of souring; cover the vessel with a thick cloth, and set it in a place of moderate warmth; leave it at rest 24 hours, at the end of which time the milk will have become sour, and a thick substance will be gathered on the top; then with a stick made at the lower end in the manner of a churn staff, beat it till the thick substance above mentioned be blended intimately with the subjacent fluid. In this situation, leave it again at rest for 24 hours more; after which pour it into a higher and narrower vessel, resembling a churn, where the agitation must be repeated as before, till the liquor appear to be perfectly homogeneous; and in this state it is called *koumiss*, of which the taste ought to be a pleasant mixture of sweet and sour. Agitation must be employed every time before it be used."—To this detail of the process the nobleman subjoined, that in order to obtain milk in sufficient quantity, the Tartars have a custom of separating the foal from the mare during the day, and allowing it to suck during the night: and when the milk is to be taken from the mare, which is generally about five times a-day, they always produce the foal, on the supposition that she yields her milk more copiously when it is present.

To the above method of making koumiss, our author has added some particulars taken from other communications with which he was favoured by Tartars themselves. According to the account of a Tartar who lived to the south-east of Orenbourg, the proportion of milk and souring ought to be the same as above; only, to prevent changing the vessel, the milk may be put at once into a pretty high and narrow vessel: and in order to accelerate the fermentation, some warm milk may be added to it, and, if necessary, more souring.—From a Tartar whom the doctor met with at the fair of Macarieff upon the Volga, and from whom he purchased one of the leathern bags (A) which are used by the Kalmucs for the preparation and carriage of their koumiss, he learned that the process may be much shortened by heating the milk before the souring be added to it, and as soon as the parts begin to separate, and a thick substance to rise to the top, by agitating it every hour or oftener. In this way he made some in the doctor's presence in the space of 12 hours. Our author learned also, that it was common among some Tartars to prepare it in one day during summer, and that with only two or three agitations; but that in winter, when, from a deficiency of mares milk, they are obliged to add a great proportion of that of cows, more agitation and more time are necessary: and though it is commonly used within a few days after the preparation, yet when well secured in close vessels, and kept in a cold place, that it may be preserved for three months, or even more, without any injury to its qualities. He was told farther, that the acid fermentation might be produced by sour milk as above, by a sour paste of rye flour, by the rennet of a lamb's stomach, or, what is more common, by a portion of old koumiss, and that in some places they saved much time, by adding the new milk to a quantity of that already fermented; on being mixed with which, it very soon undergoes the vinous change. Koumiss.

It was according to the process first mentioned, however, that all koumiss which the doctor employed in medicine was prepared.—It has been found serviceable in hectics and nervous complaints; and our author relates some very striking cases which the use of it had completely cured. All those who drank it, our author informs us, agreed in saying, that during its use, they had little appetite for food; that they drank it in very large quantities, not only without disgust, but with pleasure; that it rendered their veins turgid, without producing languor; that, on the contrary, they soon acquired from it an uncommon degree of sprightliness and vivacity; that even in cases of some excess it was not followed by indigestion, headach, or any of the symptoms which usually attend the abuse of other fermented liquors.

The utility, however, of this preparation as a medicine, supposing it completely ascertained, would among us, as our author observes, be greatly circumscribed by the scarcity of mares milk in this country. "Hence (says he) inquiries will naturally be made, whether other species of milk admit of a similar vinous fermentation, and what proportion of spirit they contain. As these have never been the object, however, of my attention, I will here give the substance of what I have been able to learn from others respecting that which is the most common, the milk of cows.

"Dr Pallas, in the work above quoted, says, that cows milk is also susceptible of the vinous fermentation, and that the Tartars prepare a wine from it in winter, when mares milk fails them; that the wine prepared from cows milk, they call *airen*; but that they always prefer koumiss when it can be got, as it is more agreeable, and contains a greater quantity of spirit; that koumiss on distillation yields of a weak spirit one third, but that airen yields only two-ninth parts of its whole quantity, which spirit they call *arica*.

"This account is confirmed by Oseretskowsky, a Russian, who accompanied Lepechin and other academicians, in their travels through Siberia and Tartary.

(A) This bag was made of a horse's hide undressed, and by having been smoked had acquired a great degree of hardness. Its shape was conical, but was at the same time somewhat triangular, from being composed of three different pieces, set in a circular base of the same hide. The sutures, which were made with tendons, were secured by a covering on the outside, with a doubling of the same skin, very closely secured. It had a dirty appearance, and a very disagreeable smell. On being asked the reason of this, he said, "The remains of the old koumiss were left, in order to supply a ferment to the new milk."

Kommiss ‖ Krishna.

He published lately a dissertation on the ardent spirit to be obtained from cows milk.

"From his experiments it appears, that cows milk may be fermented with, or even without, souring, provided sufficient time and agitation be employed; that no spirit could be produced from any of its constituent parts taken separately, nor from any two of them, unless inasmuch as they are mixed with some part of the third; that the milk with all its parts in their natural proportion was the most productive of it; that the closer it was kept, or, which is the same thing, the more difficultly the fixed air is allowed to escape during the fermentation (care being taken, however, that we do not endanger the bursting of the vessel), the more spirit is obtained. He also informs us, that it had a sourer smell before than after agitation; that the quantity of spirit was increased, by allowing the fermented liquor to repose for some time before distillation; that from six pints of milk fermented in a close vessel, and thus set to repose, he obtained three ounces of ardent spirit, of which one was consumed in burning; but that from the same quantity of the same milk fermented in an open vessel, he could scarcely obtain an ounce."

KRAKEN, the name of an animal supposed to have been seen at sea, of a monstrous size, in the existence of which the weakness and credulity of the fishermen have excited the belief even among respectable naturalists, and among others Bishop Pontoppidan, who describes it in his Natural History of Norway. It is probable that the whole depends on certain optical appearances arising from a peculiar state of the atmosphere, which thus exhibits to the deluded fancy something of the form of a huge animal.

KRANTZIUS, ALBERTUS, a native of Hamburgh, and a famous historian, who travelled over several parts of Europe, and was made rector of the university of Rostoch in 1482. He went from thence to Hamburgh in 1508, where he was elected dean of the chapter in the cathedral. He did many good services to that church and city; and was so famed for his abilities and prudence, that John king of Denmark and Frederic duke of Holstein did not scruple to make him umpire in a dispute they had with the Ditmarsi. He wrote several good historical works; the most considerable of which is an Ecclesiastical History of Saxony, entitled *Metropolis*, in folio; the best edition is that of Francfort. He died in 1517.

KRAUT, or CROUT. See CROUT.

KRISHNA, or CRISHNA, an eastern river of considerable magnitude, very little known to Europeans. It annually overflows a vast tract of country, like the Indus on the western side of the empire. It rises from the foot of the western Ghauts, about 45 miles from Severndroog. There is another branch to the east, on which side is Sattara, a strong fortress, and once the capital of the Mahratta state. The river continues descending to the east. In the north side of the Krishna falls the great river Bima, after traversing a country 350 miles in extent. The Krishna, above and below its conflux with the Bima, is fordable; and its channel is 600 yards wide a few miles below, rendered horrible by the number and rudeness of the different rocks, which are only covered during the rainy season.

Another extensive branch of the Krishna is Tungbuddra, which falls into it in Lat. 16° 25′, and rises far to the southward from a dubious fountain. This river derives considerable celebrity from its having had on its banks at one period the splendid city of Vijanagar, in Lat. 15° 22′, founded in 1344 by Belaldeo, king of the Carnatic, which at that time comprehended the whole peninsula. This vast city is said to have been 24 miles in circumference. In the remaining part of the course of the Krishna, there is nothing to be met with which is any way remarkable.

Krishna ‖ Kuril.

KUBESHA. See LESGUIS.

KUMI, the name of an island situated between Japan and China, which was visited by the unfortunate navigator Perouse. The inhabitants of this island are neither Japanese nor Chinese, but seem to participate of the nature of both. They wear a shirt and cotton drawers; and their hair, tucked up on the crown of the head, is rolled round a needle, probably of gold. Each wears a dagger with a golden handle; their canoes are made of trees hollowed out, which they manage with no great dexterity. At Kumi, vessels in want of provisions, wood and water, might find a seasonable supply; but as the whole island does not exceed 12 miles in circumference, the population can scarcely be estimated at more than 500; and as M. Perouse well observes, a few gold needles are not of themselves a proof of wealth," so that the trade with its inhabitants would of necessity be very limited. Kumi lies in 24° 33′ N. Lat. and 120° 56′ E. Long from Paris.

KUNCKEL, JOHN, a celebrated Saxon chemist, was born in the duchy of Sleswick, in 1630. He became chemist to the elector of Saxony, the elector of Brandenburgh, and Charles XI. king of Sweden, who gave him the title of *counsellor in metals*, and letters of nobility, with the surname of *Louwensteing*. He employed 50 years in chemistry; in which, by the help of the furnace of a glasshouse which he had under his care, he made several excellent discoveries, particularly of the phosphorus of urine. He died in Sweden in 1702; and left several works, some in German, and others in Latin: among which, that entitled *Observationes Chemicæ*, and the Art of Making Glass, printed at Paris in 1752, are the most esteemed.

KURIL or KURILSKI ISLES, extending from N. Lat. 51. to 45. which probably once lengthened the peninsula of Kamtschatka before they were convulsed from it, are a series of islands running south from the low promontory Lopatka, between which and Shoomska the most northerly is only the distance of one league. On the lofty Paramouser, the second in the chain, is a high peaked mountain, probably volcanic; there is also a volcano on the fourth, called *Auraumakutan*; and there are others on some of the smaller islands. Japan also abounds with volcanoes; so that there is a series of spiracles from Kamtschatka to Japan, the last great link of this extensive chain.—The Russians soon annexed these islands to their conquests. The sea abounded with otters, and the land with bears and foxes; and some of the isles sheltered the sable; but now, it is said, the furs of the sea otters have become extremely scarce both here and in Kamtschatka.

Of the 21 islands subject to the Russian empire, no more than four are inhabited, which are the first, second, thirteenth, and fourteenth, as they are distinguished

Kuril Islands. guished from each other by numbers instead of names. The inhabitants pass the winter on N° 14, and the summer months on N° 13. The rest of these islands are wholly uninhabited; but visited occasionally, for the purpose of hunting otters and foxes. Between the islands the currents are extremely violent, especially at the entrance of the channels, some of which are blocked up with rocks on a level with the sea. The population of the four inhabited islands may amount to 1400. The natives are hairy, have long beards, and subsist entirely on the produce of the chace, on seals, and other species of fish. At the time when Perouse visited this island, the people were exempted for ten years from the tribute paid to the emperor of Russia, because the number of otters was greatly diminished; a pleasing proof of the mildness of that government, which has been so often represented as rigidly despotic. The people of these islands are represented as poor, but virtuous, given to hospitality, and docile, and all of them believers of the Christian religion. They extend from 51° to 45° N. Lat.

KURTUS, a genus of fishes belonging to the order *Jugulares*. See ICHTHYOLOGY *Index*.

KUSTER, LUDOLF, a very learned writer in the 18th century, was born at Blomberg in Westphalia. When very young, he was upon the recommendation of Baron Spanheim appointed tutor to the two sons of the count de Schwerin, prime minister of the king of Prussia, who, upon our author's quitting that station, procured him a pension of 400 livres. He was promised a professorship in the university of Joachim; and till this should be vacant, being then but 25, he resolved to travel. He read lectures at Utrecht; went to England; and from thence to France, where he collated Suidas with three MSS. in the king's library, which furnished him with a great many fragments that had never been published. He was honoured with the degree of doctor by the university of Cambridge, which made him several advantageous offers to continue there: but he was called to Berlin, where he was installed in the professorship promised him. Afterwards he went to Antwerp; and being brought over to the Catholic religion, he abjured that of the Protestants. The king of France rewarded him with a pension, and ordered him to be admitted supernumerary associate of the Academy of Inscriptions. But he enjoyed this, however, a very short time; he died in 1716, aged 46. He was a great master of the Latin tongue, and wrote well in it; but his chief excellence was his skill in the Greek language, to which he almost entirely devoted himself. He wrote many works; the principal of which are, 1. *Historia critica Homeri*. 2. *Jamblicus de vita Pythagoræ*. 3. An excellent edition of Suidas, in Greek and Latin, three volumes, folio. 4. An edition of Aristophanes, in Greek and Latin, folio. 5. A new Greek edition of the New Testament, with Dr Mills's Variations, in folio. Kuster Kyphonism

KYLE, a district of Ayrshire in Scotland, the limits of which are erroneously stated in the account which is given in that country. There are three districts in Ayrshire, Carrick to the south, Kyle in the middle, and Cunningham to the north. Carrick is divided from Kyle by the river Doon, and not by the river Ayr as has been noted by mistake; the boundaries of Kyle are the river Doon on the south, and the river Irvine on the north. See AYRSHIRE.

KYPHONISM, KYPHONISMUS, or *Cyphonismus*, an ancient punishment which was frequently undergone by the martyrs in the primitive times; wherein the body of the person to suffer was anointed with honey, and so exposed to the sun, that the flies and wasps might be tempted to torment him. This was performed in three ways: sometimes they only tied the patient to a stake; sometimes they hoisted him up into the air, and suspended him in a basket; and sometimes they stretched him out on the ground with his hands tied behind him. The word is originally Greek, and comes from κυφων, which signifies either the *stake* to which the patient was tied, the *collar* fitted to his neck, or an *instrument* wherewith they tormented him: the scholiast on Aristophanes says, it was a wooden lock, or cage; and that it was called so from κυπτειν, "to crook or bend," because it kept the tortured in a crooked, bowing posture: others take the κυφων for a log of wood laid over the criminal's head, to prevent his standing upright: Hesychius describes the κυφων as a piece of wood whereon criminals were stretched and tormented. In effect, it is probable the word might signify all these several things. It was a generical name, whereof these were the species.

Suidas gives us the fragment of an old law, which punished those who treated the laws with contempt with kyphonism for the space of twenty days; after which they were to be precipitated from a rock, dressed in women's habit.

L.

L, A SEMI VOWEL, or liquid, making the eleventh letter of the alphabet.

It was derived from the old Hebrew Lamed, or Greek Lambda λ. It is sounded by intercepting the breath between the tip of the tongue and forepart of the palate, with the mouth open; and makes a sweet sound, with something of an aspiration; and therefore the Britons and Spaniards usually doubled it, or added an *h* to it, in the beginning of words, as in *llan*, or *lhan*, "a temple," sounding nearly like *fl*, &c. In English words of one syllable it is doubled at the end, as *tell*, *bell*, *knell*, &c. but in words of more syllables than one it is single, at the end, as *evil*, *general*, *constitutional*, &c. It is placed after most of the consonants in the beginning

L
Labadie.

ning of words and syllables, as *black*, *glare*, *ad-le*, *ea-gle*, &c. but before none. Its sound is clear in *Abel*, but obscure in *able*, &c.

As a numeral letter, L denotes 50; and with a dash over it, thus $\bar{L}$, 5000. Used as an abbreviature, L stands for Lucius; and L. L. S. for a sesterce. See SESTERCE.

LA, the syllable by which Guido denotes the last sound of each hexachord; if it begins in C, it answers to our A; if in G, to E; and if in F, to D.

LABADIE, JOHN, a famous French enthusiast, son of John Charles Labadie, governor of Bourges and gentleman in ordinary of the bedchamber to the French king, was born in 1610. He entered young into the Jesuits college at Bourdeaux; which, by his own account, he afterwards quitted, but by other accounts was expelled for his peculiar notions, and for hypocrisy. He became a popular preacher; but being repeatedly detected in working upon female devotees with spiritual instructions for carnal purposes, his loss of character among the Catholics drove him among the Protestants. A reformed Jesuit being thought a great acquisition, he was precipitately accepted as a pastor at Montauban, where he officiated for eight years; but, attempting the chastity of a young lady whom he could not convert to his purpose, and quarrelling with the Catholic priest about the right of interring a dead body, he was at length banished that place. The story of his affair with the lady, as related by Mr Bayle, may here be given as a specimen of his ministry. Having directed this damsel to the spiritual life, which he made to consist in internal recollection and mental prayer, he gave her out a certain point of meditation; and having strongly recommended it to her to apply herself entirely for some hours to such an important object, he went up to her when he believed her to be at the height of her recollection, and put his hand into her breast. She gave him a hasty repulse, expressed a great deal of surprise at the proceeding, and was even preparing to rebuke him, when he, without being in the least disconcerted, and with a devout air, prevented her thus: "I see plainly, my child, that you are at a great distance from perfection; acknowledge your weakness with a humble spirit; ask forgiveness of God for your having given so little attention to the mysteries upon which you ought to have meditated. Had you bestowed all necessary attention upon these things, you would not have been sensible of what was doing about your breast. But you are so much attached to sense, so little concentered with the Godhead, that you were not a moment in discovering that I had touched you. I wanted to try whether your fervency in prayer had raised you above the material world, and united you with the Sovereign Being, the living source of immortality and of a spiritual state; and I see, to my great grief, that you have made very small progress, and that you only creep on the ground. May this, my child, make you ashamed, and for the future move you to perform the duties of mental prayer better than you have hitherto done." The young lady, who had as much good sense as virtue, was no less provoked at these words than at the bold actions of her ghostly instructor; and could never afterwards bear the name of such a holy father. Labadie being driven out of Montauban, went to seek an asylum at Orange: but not finding himself so safe there as he imagined, he withdrew privately to Geneva, where he imposed on the people by his devout preaching and carriage; and from thence was invited to Middleburg, where his spirituality made him and his followers be considered as so many saints, distinguished by the name of *Labadists*. They increased so much, that he excited the attention of the other churches, whose authority he disputed, till he was formally deposed by the synod of Dort. Instead of obeying, he procured a tumultuous support from a crowd of his devotees; and at length formed a little settlement between Utrecht and Amsterdam, where he erected a printing press, which sent forth many of his works. Here he was betrayed by some deserters, who exposed his private life, and informed the public of his familiarities with his female disciples, under pretence of uniting them more particularly to God; and was finally obliged to retire to Altena in Holstein, where he died in 1674.

Labadie
Labat.

LABADISTS, a sect of religionists in the 17th century, followers of the opinions of John Labadie, of whom an account is given in the preceding article. Some of their opinions were, 1. That God could, and did deceive men. 2. That, in reading the Scriptures, greater attention should be paid to the internal inspiration of the Holy Spirit than to the words of the text. 3. That baptism ought to be deferred till mature age. 4. That the good and the wicked entered equally into the old alliance, provided they descended from Abraham; but that the new admitted only spiritual men. 5. That the observation of Sunday was a matter of indifference. 6. That Christ would come and reign 1000 years on earth. 7. That the eucharist was only a commemoration of the death of Christ; and that, though the symbols were nothing in themselves, yet that Christ was spiritually received by those who partook of them in a due manner. 8. That a contemplative life was a state of grace, and of divine union during this life, the summit of perfection, &c. 9. That the man whose heart was perfectly content and calm, half enjoys God, has familiar entertainments with him, and sees all things in him. 10. That this state was to be come at by an entire self-abnegation, by the mortification of the senses and their objects, and by the exercise of mental prayer.

LABARUM, the banner or standard borne before the Roman emperors in the wars. The *labarum* consisted of a long lance, with a staff a-top, crossing it at right angles; from which hung a rich streamer, of a purple colour, adorned with precious stones. Till the time of Constantine it had an eagle painted on it; but that emperor, in lieu thereof, added a cross with a cipher expressing the name of *Jesus*.

This standard the Romans took from the Germans, Dacæ, Sarmatæ, Pannonians, &c. whom they had overcome. The name *labarum* was not known before the time of Constantine; but the standard itself, in the form we have described it, abating the symbols of Christianity, was used by all the preceding emperors. Some derive the word from *labor*, as if this finished their labours; some from ευλαβεια, "reverence, piety;" others from λαμβανειν, "to take;" and others from λαφυρα, "spoils."

LABAT, JOHN BAPTIST, a celebrated traveller, of the order of St Dominic, was born at Paris, taught philosophy

Labat ‖ Laboratory.

philosophy at Nancy, and in 1693 went to America in quality of a missionary. At his return to France in 1705, he was sent to the chapter of his order at Bologna to give an account of his mission, and staid several years in Italy. He died at Paris in 1738. His principal works are, 1. A new voyage to the American islands, 6 vols 12mo. 2. Travels in Spain and Italy, 8 vols 12mo. 3. A new account of the western parts of Africa, 5 vols 12mo. Father Labat was not in Africa, and therefore was not a witness of what he relates in that work. He also published the *Chevalier des Marchais's voyage to Guinea*, in 4 vols 12mo; and *An historical account of the western parts of Ethiopia*, translated from the Italian of Father Cavazzi, 5 vols 12mo.

LABDANUM, or LADANUM, a resinous juice which exudes from a tree of the cistus kind. See CHEMISTRY and MATERIA MEDICA *Index*.

LABDASSEBA, a tribe of savage Arabs inhabiting the desert of Sahara in Africa. They are considered as the most powerful of all those tribes except the Ouadelims, and very much resemble them in every particular. See SAHARA and OUADELIMS.

LABEL, a long, thin, brass rule, with a small sight at one end, and a centre hole at the other; commonly used with a tangent line on the edge of a circumferentor, to take altitudes, &c.

LABEL, in *Law*, is a narrow slip of paper, or parchment, affixed to a deed or writing, in order to hold the appending seal.—Any paper annexed by way of addition or explication, to any will or testament, is also called a label or codicil.

LABEL, in *Heraldry*, a fillet usually placed in the middle along the chief of the coat, without touching its extremities. Its breadth ought to be a ninth part of the chief. It is adorned with pendants; and when there are above three of these, the number must be specified in blazoning.

It is used on the arms of eldest sons while the father is alive, to distinguish them from the younger; and is esteemed the most honourable of all differences. See HERALDRY.

LABIAL LETTERS, those pronounced chiefly by means of the lips.

LABIATED FLOWERS, monopetalous flowers, consisting of a narrow tube with a wide mouth, divided into two or more segments. See BOTANY.

LABIAU, a small town of Prussia, in a circle of the same name, seated at the mouth of the river Deime, with a strong castle, two sides of which are surrounded with water, and the other defended by a wall and ditch. E. Long. 21. 15. N. Lat. 55. 17.

LABORATORY, or ELABORATORY, the chemists workhouse, or the place where furnaces are built, vessels kept, and operations are performed. In general the term *laboratory* is applied to any place where physical experiments in pharmacy, chemistry, pyrotechny, &c. are performed.

As laboratories must be of very different kinds, according to the nature of the operations to be performed in them, it is impossible that any directions can be given which will answer for every one. Where the purposes are merely experimental, a single furnace or two of the portable kind will be sufficient. It is scarcely needful to add, that shelves are necessary for holding vessels with the products of the different operations: and that it is absolutely necessary to avoid confusion and disorder, as by these means the products of the operations might be lost or mistaken for one another. Mortars, filters, levigating stones, &c. must also be procured: but from a knowledge of the methods of performing the different chemical operations will easily be derived the knowledge of a proper place and proper apparatus; for which see CHEMISTRY, and FURNACE. Laboratory.

Morveau has contrived a portable laboratory with which many chemical experiments may be conveniently performed. The following is a description of it.

Fig. 1. represents the whole apparatus ready mounted for distillation, with the tube of safety and a pneumatic receiver. A is the body or reservoir of Argand's lamp, with its shade and glass chimney. The lamp may be raised or lowered at pleasure by means of the thumb-screw B, and the wick rises and falls by the motion of the small-toothed wheel placed over the waste cup. This construction is most convenient, because it affords the facility of altering the position of the flame with regard to the vessels, which remain fixed; and the troublesome management of bended wires above the flame for the support of the vessels is avoided, at the same time that the flame itself can be brought nearer to the matter on which it is intended to act. D, a support consisting of a round stem of brass, formed of two pieces which screw together at about two-thirds of its height. Upon this the circular ring E, the arm F, and the nut G slide, and are fixable each by its respective thumb-screw. The arm carries a moveable piece H, which serves to suspend the vessels in a convenient situation, or to secure their position. The whole support is attached to the square iron stem of the lamp by a piece of hard wood I, which may be fixed at any required situation by its screw. K represents a stand for the receivers. Its moveable tablet L is fixed at any required elevation by the wooden screw M. The piece which forms the foot of this stand is fixed on the board N; but its relative position with regard to the lamp may be changed by sliding the foot of the latter between the pieces OO. P, another stand for the pneumatic trough. It is raised or lowered, and fixed to its place, by a strong wooden screw Q. R is a tube of safety, or reversed syphon, which serves, in a great measure, to prevent the bad effects of having the vessels either perfectly closed, or perfectly open. Suppose the upper bell-shaped vessel to be nearly of the same magnitude as the bulb at the lower end of the tube, and that a quantity of water, or other suitable fluid, somewhat less than the contents of that vessel, be poured into the apparatus: In this situation, if the elasticity of the contents of the vessel be less than that of the external air, the fluid will descend in the bulb, and atmospheric air will follow and pass through the fluid into the vessels: but, on the contrary, if the elasticity of the contents be greater, the fluid will be either sustained in the tube, or driven into the bell-shaped vessel; and if the force be strong enough, the gaseous matter will pass through the fluid, and in part escape. Plate CLXXXIX.

Fig. 2. Shews the lamp furnace disposed to produce the saline fusion; the chimney of glass shortened; the support D turned down; the capsule of platina or silver S placed on the ring very near the flame.

Fig.

Laboratory & Labyrinth.

Fig. 3. The same part of the apparatus, in which, instead of the capsule, a very thin and small crucible of platina T is substituted, and rests upon a triangle of iron wire placed on the ring.

Fig. 4. Exhibits the plan of fig. 3.

LABORATORY, in military affairs, signifies that place where all sorts of fire-works are prepared, both for actual service and for experiments, viz. quick matches, fuzes, port-fires, grape shot, case shot, carcasses, hand-grenades, cartridges, shells filled, and fuzes fixed, wads, &c. &c.

LABOUR, in general, denotes a close application to work or business.—Among seamen a ship is said to labour when she rolls and tumbles very much, either a-hull, under sail, or at anchor.—It is also spoken of a woman in travail or childbirth; see MIDWIFERY.

LABOURER, generally signifies one that does the most slavish and less artful part of a laborious work, as that of husbandry, masonry, &c.

LABOUREUR, JOHN LE, almoner to the king of France, and prior of Juvigne, was born at Montmorency near Paris in 1623. At the age of 18, he distinguished himself by publishing "a collection of the monuments of illustrious persons buried in the church of the Celestines at Paris, with their elogies, genealogies, arms, and mottos," 4to. He afterwards published an excellent edition of The Memoirs of Michael de Castelneau, with several other genealogical histories; and died in 1675.—He had a brother, *Louis le Laboureur*, bailiff of Montmorency, author of several pieces of poetry; and an uncle, *Dome Claude le Labourcur*, provost of the abbey of L'Isle Barbe, of which abbey he wrote a history, and published notes and corrections upon the breviary of Lyons, with some other things.

LABRADOR, the same with *New BRITAIN*, or the country round *HUDSON's Bay*. See these articles.

LABRADORE STONE, a species of mineral which exhibits a great variety of colours. See MINERALOGY *Index*.

LABRUM, in antiquity, a great tub which stood at the entrance of the temples, containing water for the priests to wash themselves in previous to their sacrifices. It was also the name of a bathing tub used in the baths of the ancients.

LABRUS, a genus of fishes belonging to the order of thoracici. See ICHTHYOLOGY *Index*.

LABURNUM. See CYTISUS, BOTANY *Index*.

LABYRINTH, among the ancients, was a large intricate edifice cut out into various aisles and meanders running into each other, so as to render it difficult to get out of it.

There is mention made of several of those edifices among the ancients; but the most celebrated are the Egyptian and the Cretan labyrinths.

That of Egypt, according to Pliny, was the oldest of all the known labyrinths, and was subsisting in his time after having stood 3600 years. He says it was built by King Petesucus, or Tithoes; but Herodotus makes it the work of several kings: it stood on the banks of the lake Mœris, and consisted of 12 large contiguous palaces, containing 3000 chambers, 1500 of which were under ground.—Strabo, Diodorus Siculus, Pliny, and Mela, speak of this monument with the same admiration as Herodotus: but not one of them tells us that it was constructed to bewilder those who attempted to go over it; though it is manifest that, without a guide, they would be in danger of losing their way. Labyrinth.

It was this danger, no doubt, which introduced a new term into the Greek language. The word *labyrinth*, taken in the literal sense, signifies a circumscribed space, intersected by a number of passages, some of which cross each other in every direction like those in quarries and mines, and others make larger or smaller circuits round the place from which they depart like the spiral lines we see on certain shells. In the figurative sense, it was applied to obscure and captious questions, to indirect and ambiguous answers, and to those discussions which, after long digressions, bring us back to the point from which we set out.

The Cretan labyrinth is the most famed in history or fable; having been rendered particularly remarkable by the story of the Minotaur, and of Theseus who found his way through all its windings by means of Ariadne's clue. On Plate CCLXXXIX. is exhibited a supposed plan of it, copied after a draught given by Meursius *, taken from an ancient stone.—But what was the real nature of this labyrinth, merits a more particular inquiry.

* *In Cret.* lib. i. cap. 2.

Diodorus Siculus relates as a conjecture, and Pliny as a certain fact, that Dædalus constructed this labyrinth on the model of that of Egypt, though on a less scale. They add, that it was formed by the command of Minos, who kept the Minotaur shut up in it; and that in their time it no longer existed, having been either destroyed by time, or purposely demolished. Diodorus Siculus and Pliny, therefore, considered this labyrinth as a large edifice; while other writers represent it simply as a cavern hollowed in the rock, and full of winding passages. The two former authors, and the writers last mentioned, have transmitted to us two different traditions; it remains for us to choose that which is most probable.

If the labyrinth of Crete had been constructed by Dædalus under Minos, whence is it that we find no mention of it, neither in Homer, who more than once speaks of that prince and of Crete; nor in Herodotus, who describes that of Egypt, after having said that the monuments of the Egyptians are much superior to those of the Greeks; nor in the more ancient geographers; nor in any of the writers of the ages when Greece flourished?

This work was attributed to Dædalus, whose name is alone sufficient to discredit a tradition. In fact, his name, like that of Hercules, had become the resource of ignorance, whenever it turned its eyes on the early ages. All great labours, all works which required more strength than ingenuity, were attributed to Hercules; and all those which had a relation to the arts, and required a certain degree of intelligence in the execution, were ascribed to Dædalus.

The opinion of Diodorus and Pliny supposes, that in their time no traces of the labyrinth existed in Crete, and that even the date of its destruction had been forgotten. Yet it is said to have been visited by the disciples of Apollonius of Tyana, who was cotemporary with those two authors. The Cretans, therefore, then believed that they possessed the labyrinth.

"I would request the reader (continues the abbé Barthelmi †, from whom these observations are extracted)

† *Travels of Anacharsis*, vi. 441.

Fig. 2.

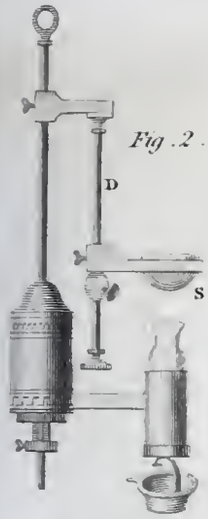


Fig. 3.

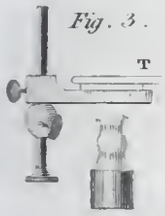


Fig. 1.

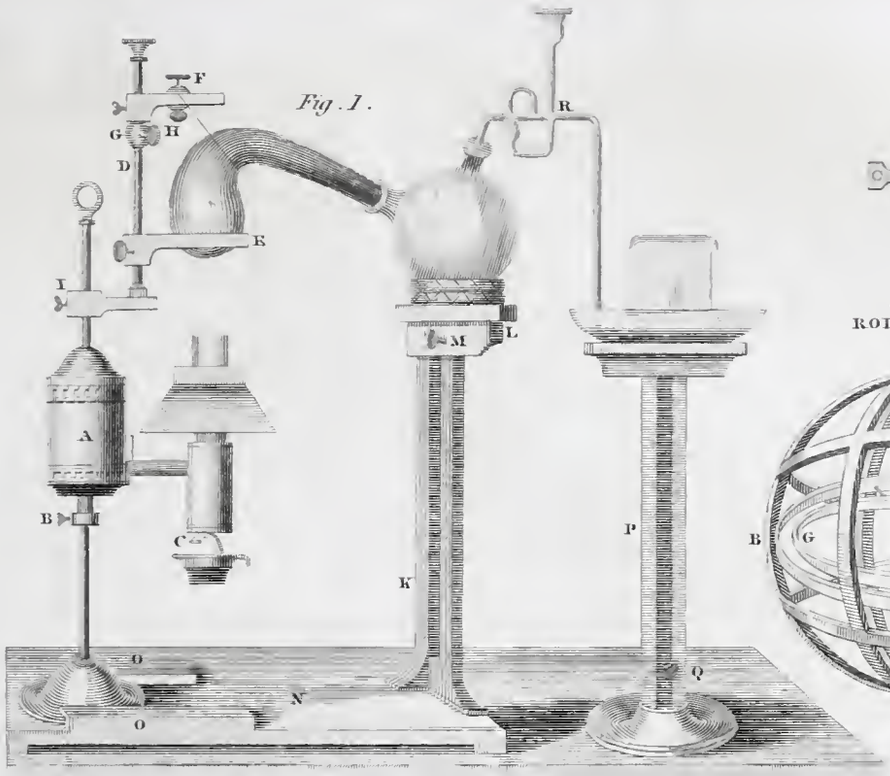
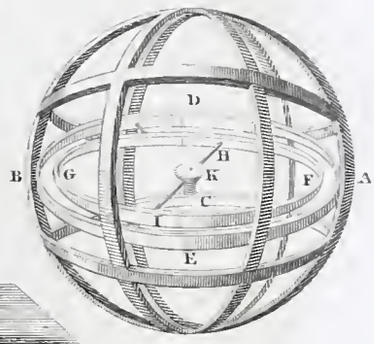


Fig. 4.

ROLLING LAMP.



LABYRINTH.

Drawn & Engraved

for W. & D. Lizars Edinr.

Labyrinth, Lac.

tracted) to attend to the following passage in Strabo. At Napulia, near the ancient Argos, (says that judicious writer), are still to be seen vast caverns, in which are constructed labyrinths that are believed to be the work of the Cyclops: the meaning of which is, that the labours of men had opened in the rock passages which crnssed and returned upon themselves, as is done in quarries. Such, if I am not mistaken, is the idea we ought to form of the labyrinth of Crete.

"Were there several labyrinths in that island? Ancient authors speak only of one, which the greater part place at Cnossus; and some, though the number is but small, at Gortyna.

"Belon and Tournefort have given us the description of a cavern situated at the foot of Mount Ida, on the south side of the mountain, at a small distance from Gortyna. This was only a quarry according to the fnrmer, and the ancient labyrinth according to the latter; whose opinion I have followed, and abridged his account. Those who have added critical notes to his work, besides this labyrinth, admit a second at Cnossus, and adduce as the principal support of this opinion the coins of that city, which represent the plan of it according as the artists conceived it. For on some of these it appears of a square form, on others round: on some it is only sketched out; on others it has, in the middle of it, the head of the Minotaur. In the Memoirs of the Academy of Belles Lettres, I have given an engraving of one which appears to me to be of about the 15th century before Christ, and on which we see on one side the figure of the Minotaur, and on the other a rude plan of the labyrinth. It is therefore certain, that at that time the Cnossians believed they were in possession of that celebrated cavern; and it also appears that the Gortynians did not pretend to contest their claim, since they have never given the figure of it on their money.

"The place where I suppose the labyrinth of Crete to have been situated, according to Tournefort, is but one league distant from Gortyna; and, according to Strabo, it was distant from Cnossus six or seven leagues. All we can conclude from this is, that the territory of the latter city extended to very near the former.

"What was the use of the caverns to which the name of labyrinth was given? I imagine that they were first excavated in part by nature; that in some places stones were extracted from them for building cities; and that in more ancient times they served for a habitation or asylum to the inhabitants of a district exposed to frequent incursions. In the journey of Anacharsis through Phocis, I have spoken of two great caverns of Parnassus, in which the neighbouring people took refuge; in the one at the time of the deluge of Deucalion, and in the other at the invasion of Xerxes. I here add, that, according to Diodorus Siculus, the most ancient Cretans dwelt in the caves of Mount Ida. The people, when inquiries were made on the spot, said that their labyrinth was originally only a prison. It may have been put to this use; but it is difficult to believe, that, to prevent the escape of a few unhappy wretches, such immense labours would have been undertaken."

Labyrinth of the Ear. See Anatomy *Index.*

LAC, Milk. See Milk, Chemistry *Index.*

Lac, *Gum.* See Lacca.

Lac, Lacca.

LACCA, Lac, or *Gum Lac*, is a substance, of which a species of insects form cells upon trees, like honeycombs. This is the *coccus lacca*, Lin. See Entomology *Index.* In these cells remain some of the dead insects, which give a red colour to the whole substance of the lac. That called *stick lac* is the wax adhering to some of the small branches of the tree, and which is unprepared. This lac, when separated from the adhering sticks, and grossly powdered, and deprived of its colour by digestion with menstruums for the sake of the dyes and other purposes, is called *seed lac;* when the stick lac is freed from impurities by melting it over a gentle fire, and formed into cakes, it is called *lump lac;* and, lastly, that called *shell lac* is the cells liquefied, strained, and formed into thin transparent laminæ. See Dyeing *Index.*

The following are some of the purposes to which this substance is applied.

1. For *sealing wax.* Take a stick, and heat one end of it upnn a charcoal fire; put upon it a few leaves of the shell lac softened above the fire; keep alternately heating and adding more shell lac nntil you have got a mass of three or four pounds of liquefied shell lac upon the end of your stick (in which manner lump lac is formed from seed lac.) Knead this upon a wetted board with three ounces of levigated cinnabar; form it into cylindrical pieces; and to give them a polish, rub them while hot with a cotton cloth.

2. For *japanning.* Take a lump of shell lac, prepared in the manner of sealing wax, with whatever colour you please, fix it upon the end of a stick, heat the polished wood over a charcoal fire, and rub it over with the half melted lac, and polish by rubbing it even with a piece of folded plantain leaf held in the hand; heating the lacquer, and adding more lac as occasion requires. Their figures are formed by lac charged with various colours in the same manner.

3. For *varnish.* In ornamenting their images and religious houses, &c. they make use of very thin beat lead, which they cover with various varnishes, made of lac charged with colours. The preparation of them is kept a secret. The leaf of lead is laid upon a smooth iron heated by fire below while they spread the varnish upon it.

4. For *grindstones.* Take of river sand three parts, of seed lac washed one part: mix them over the fire in a pot, and form the mass into the shape of a grindstone, having a square hole in the centre, fix it on an axis with liquefied lac, heat the stone moderately, and by turning the axis it may be easily be formed into an exact orbicular shape. Polishing grindstones are made only of such sand as will pass easily through fine muslin, in the proportion of two parts sand to one of lac. This sand is found at Ragimaul. It is composed of small angular crystalline particles tinged red with iron, two parts to one of black magnetic sand. The stonecutters, instead of sand, use the powder of a very hard granite called *corune.* These grindstones cut very fast. When they want to increase their power, they throw sand upon them, or let them occasionally touch the edge of a vitrified brick. The same composition is formed upon sticks, for cutting stones, shells, &c. by the hand.

Lacca. 5. For *painting*. Take one gallon of the red liquid from the first washing for shell lac, strain it through a cloth, and let it boil for a short time, then add half an ounce of soap earth (fossil alkali); boil an hour more, and add three ounces of powdered load (bark of a tree); boil a short time, let it stand all night, and strain next day. Evaporate three quarts of milk without cream to two quarts upon a slow fire, curdle it with sour milk, and let it stand for a day or two; then mix it with the red liquid above mentioned; strain them through a cloth; add to the mixture one ounce and a half of alum, and the juice of eight or ten lemons: mix the whole, and throw it into a cloth bag strainer. The blood of the insect forms a coagulum with the caseous part of the milk, and remains in the bag, while a limpid acid water drains from it. The coagulum is dried in a shade, and is used as a red colour in painting and colouring.

The method of obtaining the fine red lac used by painters from this substance, is by the following simple process: Boil the stick lac in water, filter the decoction, and evaporate the clear liquor to dryness over a gentle fire. The occasion of this easy separation is, that the beautiful red colour here separated, adheres only slightly to the outsides of the sticks broke off the trees along with the gum lac, and readily communicates itself to boiling water. Some of the sticking matter also adhering to the gum itself, it is proper to boil the whole together; for the gum does not at all prejudice the colour, nor dissolve in boiling water: so that after this operation the gum is as fit for making sealing wax as before, and for all other uses which do not require its colour.

6. For *dyeing*. See DYEING *Index*.

Lac is likewise employed for medicinal purposes — The stick lac is the sort used. It is of great esteem in Germany, and other countries, for laxity and sponginess of the gums proceeding from cold or a scorbutic habit: for this use the lac is boiled in water, with the addition of a little alum, which promotes its solution; or a tincture is made from it with rectified spirit. This tincture is recommended also internally in the fluor albus, and in rheumatic and scorbutic disorders: it has a grateful smell, and not unpleasant, bitterish, astringent taste.

The gum-lac has been used as an electric, instead of glass, for electrical machines. See LACQUER, LAKE, and VARNISH.

Artificial LACCA, or *Laeque*, is also a name given to a coloured substance drawn from several flowers; as the yellow from the flower of the juniper, the red from the poppy, and the blue from the iris or violet. The tinctures of these flowers are extracted by digesting them several times in aqua vitæ, or by boiling them over a stove fire in a lixivium of pot ashes and alum.

An artificial lacca is also made of Brasil wood, boiled in a lixivium of the branches of the vine, adding a little cochineal, turmeric, calcined alum, and arsenic, incorporated with the bones of the cuttle fish pulverized, and made up into little cakes and dried. If it be to be very red, they add the juice of lemon to it; to make it brown, they add oil of tartar. Dove-coloured or columbine lacca is made with Brasil of Fernambuc, steeped in distilled vinegar for the space of a month, and mixed with alum incorporated in cuttle fish bone. For other processes, see *Colour-Making*. Lacca, Lace.

LACE, in *Commerce*, a work composed of many threads of gold, silver, or silk, interwoven the one with the other, and worked upon a pillow with spindles according to the pattern designed. The open work is formed with pins, which are placed and displaced as the spindles are moved. The importation of gold and silver lace is prohibited.

*Method of Cleaning Gold-*LACE *and Embroidery when tarnished.*—For this purpose alkaline liquors are by no means to be used; for while they clean the gold, they corrode the silk, and change or discharge its colour. Soap also alters the shade, and even the species, of certain colours. But spirit of wine may be used without any danger of its injuring either the colour or quality of the subject; and in many cases proves as effectual, for restoring the lustre of the gold, as the corrosive detergents. A rich brocade, flowered with a variety of colours, after being disagreeably tarnished, had the lustre of the gold perfectly restored by washing it with a soft brush dipt in warm spirit of wine; and some of the colours of the silk, which were likewise soiled, became at the same time remarkably bright and lively. Spirit of wine seems to be the only material adapted to this intention, and probably the boasted secret of certain artists is no other than this spirit disguised. Among liquids, Dr Lewis says, he does not know of any other that is of sufficient activity to discharge the foul matter, without being hurtful to the silk: as to powders, however fine, and however cautiously used, they scratch and wear the gold, which here is only superficial and of extreme tenuity.

But though spirit of wine is the most innocent material that can be employed for this purpose, it is not in all cases proper. The golden covering may be in some parts worn off; or the base metal, with which it had been iniquitously alloyed, may be corroded by the air, so as to leave the particles of the gold disunited; while the silver underneath, tarnished to a yellow hue, may continue a tolerable colour to the whole; in which cases it is apparent, that the removal of the tarnish would be prejudicial to the colour, and make the lace or embroidery less like gold than it was before. A piece of old tarnished gold lace, cleaned by the spirit of wine, was deprived, with its tarnish, of the greatest part of its golden hue, and looked now almost like silver lace.

Method of separating the Gold and Silver from LACE *without burning it.*—Cut the lace in pieces, and (having separated the thread from it by which it was sewed to the garment) tie it up in a linen cloth, and boil it in soap ley, diluted with water, till you perceive it is diminished in bulk; which will take up but a little time, unless the quantity of lace be very considerable. Then take out the cloth, and wash it several times in cold water; squeezing it pretty hard with your foot, or beating it with a mallet, to clear it of the soap ley; then untie the cloth, and you will have the metallic part of the lace pure, and nowhere altered in colour or diminished in weight.

This method is abundantly more convenient and less troublesome than the common way of burning; and as a small quantity of the ley will be sufficient, the expence

Lace ‖ Lacedæmon.

expence will be trifling, especially as the same ley may be used several times, if cleared of the silky calcination. It may be done in either an iron or copper vessel.

The ley may be had at the soap boilers, or it may be made of pearl ash and quicklime boiled together in a sufficient quantity of water.

The reason of this sudden change in the lace will be evident to those who are acquainted with chemistry; for silk, on which all our laces are wove, is an animal substance, and all animal substances are soluble in alkalies, especially when rendered more caustic by the addition of quicklime; but the linen you tie it in, being a vegetable, will remain unaltered.

Blond LACE, a lace made of fine linen thread or silk, much in the same manner as that of gold and silver. The pattern of the lace is fixed upon a large round pillow, and pins being stuck into the holes or openings in the patterns, the threads are interwoven by means of a number of bobbins made of bone or ivory, each of which contains a small quantity of fine thread, in such a manner as to make the lace exactly resemble the pattern. There are several towns in England, and particularly in Buckinghamshire, that carry on this manufacture; but vast quantities of the finest lace have been imported from Flanders.

LACEDÆMON, in fabulous history, a son of Jupiter and Tayget the daughter of Atlas, who married Sparta the daughter of Europa, by whom he had Amyclas and Eurydice the wife of Acrisius. He was the first who introduced the worship of the Graces in Laconia, and who first built them a temple. From Lacedæmon and his wife, the capital of Laconia was called *Lacedæmon* and *Sparta*.

LACEDÆMON, a noble city of Peloponnesus, called also *Sparta;* these names differing in this, that the latter is the proper and ancient name of the city, the former of the country, which afterwards came to be applied to the city (Strabo, Stephanus). Homer also makes this distinction; who calls the country *holy*, because encompassed with mountains. It has also been severally known by the name of *Lelegia*, from the Leleges the first inhabitants of the country, or from Lelex one of their kings; and *Oebalia*, from *Oebalas* the sixth king from Eurotas. It was also called *Hecatompolis*, from 100 cities which the whole province once contained. This city was the capital of Laconia, situated on the right or west side of the Eurotas: it was less in compass than, however equal, or even superior to, Athens in power. Polybius makes it 48 stadia, a circuit much inferior to that of Athens. Lelex is supposed to have been the first king of Lacedæmon. His descendants, 13 in number, reigned successively after him, till the reign of the sons of Orestes, when the Heraclidæ recovered the Peloponnesus about 80 years after the Trojan war. Procles and Eurysthenes, the descendants of the Heraclidæ, usurped the crown together; and after them it was decreed that the two families should always sit on the throne together. The monarchical power was abolished, and the race of the Heraclidæ extinguished at Sparta about 219 years before Christ. Lacedæmon in its flourishing state remained without walls, the bravery of its citizens being instead of them (Nepos). At length in Cassander's time, or after, when the city was in the hands of tyrants, distrusting the defence by arms and bravery, a wall was built round it, at first slight, and in a tumultuary or hasty manner; which the tyrant Nabis made very strong (Livy, Justin). Pausanias ascribes the first walls to the times of Demetrius and Pyrrhus, under Nabis. The walls of the city were pulled down 188 years before Christ by Philopœmen, who was then at the head of the Achæan league, and Laconia some time after became a Roman province when reduced by Mummius. See SPARTA.—The present city is called *Misitra*, situated in E. Long. 23. 0. N. Lat. 36. 55.

Lacedæmon ‖ Lachrymatory.

LACERNA, a coarse thick garment worn by the Romans over their gowns, like a cloak, to keep off the rain and cold. It was first used in the camp, but afterwards admitted into the city. The emperors wore the lacerna of a purple dye. The lacerna was at first very short, but was lengthened after it became fashionable, which was not till the civil wars and the triumvirate; before this time it was confined to the soldiers. Senators were forbidden wearing it in the city by Valentinian and Theodosius. Martial makes mention of lacernæ worth 10,000 sesterces. Some confound this garment with the penula; but it seems rather to have resembled the *chlamys* and *birrus*.

LACERTA, including the LIZARD, CROCODILE, &c. a genus of amphibious animals, belonging to the order of reptilia. See ERPETOLOGY *Index*.

LACHES, (from the French *lascher*, i. e. *laxare*, or *lasche*, *ignavus*), in the English law signifies slackness or negligence, as it appears in Littleton, where *laches of entry* is a neglect of the heir to enter. And probably it may be an old English word: for where we say there is *laches* of entry, it is all one as if it were said there is a *lack* of entry: and in this siguification it is used. No *laches* shall be adjudged in the heir within age; and regularly, *laches* shall not bar infants or femme coverts for not entry or claim, to avoid descents; but *laches* shall be accounted in them for non-performance of a condition annexed to the state of the land.

LACHESIS, in *Mythology*, one of the Parcæ. Her name is derived from λαχειν, *to measure out by lot*. She presided over futurity, and was represented as spinning the thread of life, or, according to others, holding the spindle. She generally appeared covered with a garment variegated with stars, and holding spindles in her hand.

LACHISH, in *Ancient Geography*, a city southward of the tribe of Judah. Eusebius and St Jerome tell us, that in their time there was a village called *Lachish*, seven miles from Eleutheropolis, southward. Sennacherib besieged Lachish, but did not take it. From thence it was that he sent Rabshakeh against Jerusalem. Here King Amaziah was slain by his rebel subjects.

LACHNEA, a genus of plants belonging to the octandria class, and in the natural method ranking under the 31st order, *Vepreculæ*. See BOTANY *Index*.

LACHRYMAL, in *Anatomy*, an appellation given to several parts of the eye. See ANATOMY.

LACHRYMATORY, in antiquity, a vessel wherein were collected the tears of a deceased person's friends, and preserved along with the ashes and urn. They were small glass or earthen bottles, chiefly in the form of phials. At the Roman funerals, the friends

Lachryma-tory || Lacquers.

of the deceased, or the *præficæ*, women hired for that purpose, used to fill them with their tears, and deposite them very carefully with the ashes, in testimony of their sorrow, imagining the manes of the deceased were thereby greatly comforted. Many specimens of them are preserved in the cabinets of the curious, particularly in the British Museum.

LACINIUM, in *Ancient Geography*, a noble promontory of the Bruttii, in Italy, the south boundary of the Sinus Tarentinus and the Adriatic; all to the south of it being deemed the Ionian sea: it was famous for a rich temple of Juno, surnamed *Lacinia*, with a pillar of solid gold standing in it; which Hannibal intending to carry off, was, according to Cicero, dissuaded by a dream. Now *Capo delle Colonne*, from the columns of Juno's temple still standing, on the north-east coast of Calabria Ultra.

LACK OF RUPEES, is 100,000 rupees; which supposiug them standard, or siccas, at 2s. 6d. amounts to 12,500l. sterling.

LACMUS, a dye stuff prepared by the Dutch from the *Lichen roccella*. See DYEING *Index*.

LACONIA, or LACONICA, a country in the southern parts of Peloponnesus, having Argos and Arcadia on the north, Messenia on the west, the Mediterranean on the south, and the bay of Argos on the east. Its extent from north to south was about 50 miles. It was watered by the river Eurotas. The capital was called Sparta, or Lacedæmon: (See LACEDÆMON and SPARTA). The brevity with which the Laconians always expressed themselves is now become proverbial; and by the epithet of *Laconic* we understand whatever is concise, and is not loaded with unnecessary words.

LACONIUM, (whence our term *laconic*), a short pithy sententious speech, such as the Lacedæmonians were remarkable for: Their way of delivering themselves was very concise, and much to the purpose. See the preceding article.

LACQUERS, are varnishes applied upon tin, brass, and other metals, to preserve them from tarnishing, and to improve their colour. The basis of lacquers is a solution of the resinous substance called *seed lac*, in spirit of wine. The spirit ought to be very strong, in order to dissolve much of the lac. For this purpose, some authors direct dry potash to be thrown into the spirit. This alkali attracts the water, with which it forms a liquid that subsides distinctly from the spirit at the bottom of the vessel. From this liquid the spirit may be separated by decantation: but by this process the spirit is impregnated with part of the alkali, which depraves its colour, and communicates a property to the lacquer of imbibing moisture from the air. These inconveniences may be prevented by distilling the spirit; or, if the artist has not an opportunity of performing that process, he may cleanse the spirit in a great measure from the alkali, by adding to it some calcined alum; the acid of which uniting with the alkali remaining in the spirit, forms with it a vitriolated tartar, which, not being soluble in spirit of wine, falls to the bottom together with the earth of the decomposed alum. To a pint of the purified spirit, about three ounces of powdered shell lac are to be added; and the mixture to be digested during same day with a moderate heat. The liquor ought then to be poured off, strained, and cleared by settling. This clear liquor is now fit to receive the required colour from certain resinous colouring substances, the principal of which are gamboge and anotto; the former of which gives a yellow, and the latter an orange colour. In order to give a golden colour, two parts of gamboge are added to one of anotto; but these colouring substances may be separately dissolved in the tincture of lac, and the colour required may be adjusted by mixing the two solutions in different proportions. When silver leaf or tin are to be lacquered, a larger quantity of the colouring materials is requisite than when the lacquer is intended to be laid on brass.

Lacquers || Lactatio.

LACSHA, the Indian name of the lac insect. See LAC, CHEMISTRY, and DYEING *Index*.

LACTATIO, LACTATION, among medical writers, denotes the *giving suck*. The mother's breast, if possible, should be allowed the child, at least during the first month; for thus the child is more peculiarly benefited by what it sucks, and the mother is preserved from more real inconveniences than the falsely delicate imagine they would suffer by compliance herewith: but if by reason of an infirm constitution, or other causes, the mother cannot suckle her child, let dry nursing under the mother's eye be pursued. *Motherby's Medical Dictionary.*

When women lose their appetite by giving suck, both the children and themselves are thereby injured; wet nurses are to be preferred, who, during the time they give the breast, have rather an increased appetite, and digest more quickly; the former are apt to waste away, and sometimes die consumptive. In short, those nurses with whom lactation may for a while agree, should wean the child as soon as their appetite lessens, their strength seems to fail, or a tendency to hysteric symptoms is manifest.

When the new born child is to be brought up by the mother's breast, apply it thereto in ten or twelve hours after delivery: thus the milk is sooner and more easily supplied, and there is less hazard of a fever than when the child is not put to it before the milk begins to flow of itself.

If the mother does not suckle her child, her breasts should be kept so warm with flannels, or with a hare skin, that a constant perspiration may be supported; thus there rarely will arise much inconvenience from the milk.

The child, notwithstanding all our care in dry nursing, sometimes pines if a breast is not allowed. In this case a wet nurse should be provided, if possible one that hath not been long delivered of a child. She should be young, of a healthy habit, and an active disposition, a mild temper, and with breasts well filled with milk. If the milk is good, it is sweetish to the taste, and totally free from saltness; to the eye it appears thin, and of a bluish cast. That the woman hath her menses, if in other respects objections be not made, need not be any; and as to the custom with many, of abstaining from venery while they continue to suckle a child, it is so far without reason to support it, that the truth is, a rigorous chastity is as hurtful, and often more pernicious, than an immoderate use of venery. Amongst the vulgar errors, is that of red-haired women being improper for wet-nurses.

If

Lactatio ‖ Lactiferous

If the menses do not appear during the first months, but after six or eight months suckling they begin to descend, the child should be weaned.

Wet nurses should eat at least one hearty meal of animal food every day; with this a proper quantity of vegetables should be mixed. Thin broth or milk are proper for their breakfasts and their suppers; and if the strength should seem to fail a little, a draught of good ale should now and then be allowed; but spirituous liquors must in general be forborne; not but a spoonful of rum may be allowed in a quart of milk and water, (i. e. a pint of each), which is a proper common drink.

Though it is well observed by Dr Hunter, that the far greater number of those women who have cancers in the breast or womb are old maids, and those who refuse to give suck to their children; yet it is the unhappiness of some willing mothers not to be able: for instance, those with tender constitutions, and who are subject to nervous disorders; those who do not eat a sufficient quantity of solid food, nor enjoy the benefit of exercise and air: if children are kept at their breasts, they either die while young, or are weak and sickly after childhood is past, and so on through remaining life.

LACTANTIUS, Lucius Coelius Firmianus, a celebrated author at the beginning of the 4th century, was, according to Baronius, an African; but, according to others, was born at Fermo in the marquisate of Ancona, from whence it is imagined he was called *Firmianus*. He studied rhetoric under Arnobius; and was afterwards a professor of that science in Africa and Nicomedia, where he was so admired, that the emperor Constantine chose him preceptor to his son Crispus Cæsar. Lactantius was so far from seeking the pleasure and riches of the court, that he lived there in poverty, and, according to Eusebius, frequently wanted necessaries. His works are written in elegant Latin. The principal of which are, 1. *De ira divina*. 2. *De operibus Dei*, in which he treats of the creation of man, and of divine providence. 3. Divine Institutions, in seven books: this is the most considerable of all his works: he there undertakes to prove the truth of the Christian religion, and to refute all the difficulties that had been raised against it; and he solidly, and with great strength, attacks the illusions of Paganism. His style is pure, clear, and natural, and his expressions noble and elegant, on which account he has been called the *Cicero of the Christians*. There is also attributed to him a treatise *De morte persecutorum;* but several of the learned doubt its being written by Lactantius. The most copious edition of Lactantius's works is that of Paris in 1748, 2 vols. 4to.

LACTEALS, or Lacteal Vessels, a kind of long slender tubes for the conveyance of the chyle from the intestines to the common reservatory. See Anatomy, N° 105.

LACTIFEROUS, an appellation given to plants abounding with a milky juice, as the sow thistle and the like. The name of *lactiferous*, or *lactescent*, is given to all those plants which abound with a thick coloured juice, without regarding whether it is white or not. Most lactiferous plants are poisonous, except those with compound flowers, which are generally of an innocent quality.

Of the poisonous lactescent plants the most remarkable are sumach, agaric, maple, burning thorny plant, cassada, celandine, puccoon, prickly poppy, and the plants of the natural order *contortæ*, as swallow-wort, apocynum, cynanchum, and cerbera. Lactiferous ‖ Ladder.

The bell-shaped flowers are partly noxious, as cardinal flower; partly innocent, as campanula.

Among the lactescent plants with compound flowers that are innocent in their quality, may be mentioned dandelion, picris, hyoseris, wild lettuce, gum succory, hawkweed, bastard hawkweed, hypochœris, goat's beard, and most species of lettuce: we say most species, because the prickly species of that genus are said to be of a very virulent and poisonous nature; though Mr Lightfoot denies this, and affirms that they are a safe and gentle opiate, and that a syrup made from the leaves and stalks is much preferable to the common diacodium.

LACTUCA, Lettuce, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*. And for the method of cultivating lettuce, see Gardening *Index*.

LACUNÆ, in *Anatomy*, certain excretory canals in the genital parts of women.

LACUNAR, in *Architecture*, an arched roof or ceiling, more especially the planking or flooring above porticoes or piazzas.

LACYDES, a Greek philosopher, born at Cyrene, was the disciple of Arcesilaus, and his successor in the academy. He taught in a garden given him by Attalus king of Pergamus; but that prince sending for him to court, he replied, "That the pictures of kings should be viewed at a distance." He imitated his master in the pleasure he took in doing good without caring to have it known: he had a goose which followed him everywhere by night as well as by day; and when she died, he made a funeral for her, which was as magnificent as if it had been for a son or a brother. He taught the same doctrine as Arcesilaus; and pretended that we ought to determine nothing, but always to suspend our opinion. He died 212 B. C.

LADDER, a frame made with a number of steps, by means of which people may ascend as on a stair to places otherwise inaccessible.

Scaling Ladders, in the military art, are used in scaling when a place is to be taken by surprise. They are made several ways: here we make them of flat staves, so that they may move about their pins, and shut like a parallel ruler, for conveniently carrying them: the French make them of several pieces, so as to be joined together, and to be made of any necessary length: sometimes they are made of single ropes, knotted at proper distances, with iron hooks at each end, one to fasten them upon the wall above, and the other in the ground; and sometimes they are made with two ropes, and staves between them, to keep the ropes at a proper distance, and to tread upon. When they are used in the action of scaling walls, they ought to be rather too long than too short, and to be given in charge only to the stoutest of the detachment. The soldiers should carry these ladders with the left arm passed through the second step, taking care to hold them upright close to their sides, and

very

Ladder || Ladoga.

very short below, to prevent any accident in leaping into the ditch.

The first rank of each division, provided with ladders, should set out with the rest at the signal, marching resolutely with their firelocks slung, to jump into the ditch; when they are arrived, they should apply their ladders against the parapet, observing to place them towards the salient angles rather than the middle of the curtain, because the enemy have less force there. Care must be taken to place the ladders within a foot of each other, and not to give them too much nor too little slope, so that they may not be overturned or broke with the weight of the soldiers mounting upon them.

The ladders being applied, they who have carried them, and they who come after, should mount up, and rush upon the enemy sword-in-hand: if he who goes first, happens to be overturned, the next should take care not to be thrown down by his comrade; but, on the contrary, immediately mount himself, so as not to give the enemy time to load his piece.

As the soldiers who mount first may be easily tumbled over, and their fall may cause the attack to fail, it would perhaps be right to protect their breasts with the fore parts of cuirasses; because, if they can penetrate, the rest may easily follow.

The success of an attack by scaling is infallible, if they mount the four sides at once, and take care to shower a number of grenades amongst the enemy, especially when supported by some grenadiers and picquets, who share the attention and fire of the enemy.

LADEN, in the sea language, the state of a ship when she is charged with a weight or quantity of any sort of merchandises, or other materials, equal to her tonnage or burden. If the cargo with which she is laden is extremely heavy, her burden is determined by the weight of the goods; and if it is light, she carries as much as she can *stow*, to be fit for the purposes of navigation. As a ton in measure is generally estimated at 2000lb. in weight, a vessel of 200 tons ought accordingly to carry a weight equal to 400,000lb. when the matter of which the cargo is composed is specifically heavier than the water in which she floats; or, in other words, when the cargo is so heavy that she cannot float high enough with so great a quantity of it as her hold will contain.

Laden in Bulk, the state of being freighted with a cargo which is neither in casks, boxes, bales, nor cases, but lies loose in the hold; being defended from the moisture or wet of the hold, by a number of mats and a quantity of *dunage*. Such are usually the cargoes of corn, salt, or such materials.

LADENBURG, a town of Germany in the duchy of Baden, seated on the river Neckar, in E. Long. 8. 42. N. Lat. 49. 27. It belongs to the grand duke of Baden.

LADISLAUS, the name of several kings of Poland. See Poland.

LADOGA, a lake in Russia, between the gulfs of Onega and Finland, measuring 130 miles by 75, and considered as the largest in Europe. Seals are among the fish with which it abounds. It is full of quicksands, which often prove fatal to the Russian flat-bottomed vessels; these sands often shifting from place to place by violent storms, and forming a number of shelves. On this account Peter the Great cut a canal 67 miles in length from the south-west extremity of the lake, thus opening a communication between it and the gulf of Finland.

Ladoga || Ladrone.

LADOGA, *New*, a town in the Russian government of Petersburgh, seated on the Volkhof, between the canal and lake of Ladoga. Old Ladoga is higher up the river, and a place of no great extent. The former is 70 miles east of Petersburgh, in N. Lat. 60° E. Long. 21° 44′.

LADOGNA, or Lacedogna, a town of Italy in the kingdom of Naples, and in the Capitanata, with a bishop's see. E. Long. 15. 12. N. Lat. 41. 16.

LADON, in *Ancient Geography*, a river of Arcadia falling into the Alpheus. The metamorphosis of Daphne into a laurel, and of Syrinx into a reed, happened near its banks.

LADRONE or Marian islands, a cluster of twelve islands lying in the Pacific ocean, in about 145° of east longitude, and between the 11th and 21st degree of north latitude. They were first discovered by Magellan, who sailed round the world through the straits which bear his name. He gave them the name of *Ladrone islands*, or the *islands of Thieves*, from the thievish disposition of the inhabitants. At the time these islands were discovered by the Europeans, the natives were totally unacquainted with any other country besides their own; and having no traditionary accounts of their own origin, they imagined that the author of their race was formed of a piece of the rock of Funa, one of their smallest islands. Many things looked upon by us as absolutely necessary to our existence, were utterly unknown to these people. They had no animals of any sort; and would not even have had any idea of them, had it not been for the birds; and even of them they had but one species, somewhat like the turtle dove, which they never killed for eating, but only tamed them, and taught them to speak. They were much astonished on seeing a horse which a Spanish captain left among them in 1673, and could not for a long time be satisfied with admiring him. But what is more surprising and incredible in their history is, that they were utterly unacquainted with the element of fire, till Magellan, provoked by their repeated thefts, burned one of their villages. When they saw their wooden houses blazing, they first thought that the fire was a beast which fed upon the wood; and some of them who came too near, being burnt, the rest stood at a distance, lest they should be devoured or poisoned by the breathings of this terrible animal

The inhabitants of the Ladrones are olive coloured, but not of such a deep dye as those of the Philippine islands; their stature is good, and their limbs well proportioned. Though their food consists entirely of fish, fruits, and roots, yet they are so fat, that to strangers they appear swelled; but this does not render them less nimble and active. They often live to 100 years or more, yet retain the vigour and health of men of 50. The men go stark naked, but the women are covered. They are not ill looked, and take great care of their beauty, though their ideas on that subject are very different from ours. They love black teeth and white hair. Hence one of their principal occupations is to keep their teeth black by the help of certain

Ladrone. certain herbs, and to whiten their hair, sprinkling upon it a certain water for this purpose. The women have their hair very long; but the men generally shave it close, except a single lock on the crown of the head, after the manner of the Japanese. Their language much resembles that of the people called *Tagales*, in the Philippine islands. It is agreeable to the ear, with a soft and easy pronunciation. One of its chief graces consists in the facility of transposing words, and even all the syllables of one word; and thus furnishing a variety of double meanings, with which these people are greatly delighted. Though plunged in the deepest ignorance, and destitute of every thing valued by the rest of mankind, no nation ever showed more presumption or greater conceit of themselves, than these islanders, looking on their own nation as the only wise, sensible, and polished one in the world, and beholding every other people with the greatest contempt. Though they are ignorant of the arts and sciences, yet, like every other nation, they have their fables which serve them for history, and some poems which they greatly admire. A poet is with them a character of the first eminence, and greatly respected.

It is not known at what time, or from what place, the Ladrone islands were first peopled. As Japan lies within six or seven days sail of them, some have been induced to believe, that the first inhabitants of the Ladrones came from Japan. But from their greater resemblance to the inhabitants of the Philippine islands than to the Japanese, it is more probable that they came from the former than the latter. Formerly most of the islands were inhabited; and about 90 years ago, the three principal islands, Guam, Tinian, and Rota, are said to have contained 50,000 people; but since that time, Tinian has been entirely depopulated, and only 200 or 300 Indians left at Rota to cultivate rice for the island of Guam, which alone is inhabited by Europeans, and where the Spaniards have a governor and a garrison: here also the annual Manilla ship touches for refreshments in her passage from Acapulco to the Philippines. The island of Tinian afforded an asylum to Commodore Anson in 1742; and the masterly manner in which the author of that voyage paints the natural beauties of the country, has given a degree of estimation not only to this island, but to all the rest, which they had not before. Commodore Byron, in 1765, continued nine weeks at Tinian, and anchored in the very spot where the Centurion lay; but gives a much less favourable account of this climate and country than the former navigator. The water, he says, is brackish, and full of worms; many of his men were seized with fevers, occasioned by the intense heat; the thermometer, which was kept on board the ship, generally stood at 86°, which is but 10 or 11 degrees less than the heat of the blood at the heart; and had the instrument been ashore, he imagines it would have stood much higher than it did. It was with the greatest difficulty that they could penetrate through the woods; and when they had fortunately killed a bull, and with prodigious labour dragged it through the forests to the beach, it stunk, and was full of fly-blows by the time it reached the shore. The poultry was ill tasted; and within an hour after it was killed, the flesh became as green as grass, and swarmed with maggots. The wild hogs were very fierce; and so large, that a carcass frequently weighed 200 pounds. Cotton and indigo were found on the island. Captain Wallis continued here a month in 1767, but makes no such complaints. Ladrone Islands. Lævinus.

LADY. This title is derived from two Saxon words, which signify *loaf-day*, which words have in time been contracted into the present appellation. It properly belongs only to the daughters of earls, and all of higher rank; but custom has made it a word of complaisance for the wives of knights and of all eminent women.

As to the original application of this expression, it may be observed, that heretofore it was the fashion for those families, whom God had blessed with affluence, to live constantly at their mansion houses in the country, and that once a-week, or oftener, the lady of the manor distributed to her poor neighbours, *with her own hands*, a certain quantity of bread; but the practice, which gave rise to this title is now as little known as the meaning of it; however, it may be from that hospitable custom, that to this day the ladies in this kingdom alone serve the meat at their own table.

Lady's Bedstraw. See GALIUM,
Lady's Mantle. See ALCHEMILLA,
Lady's Smoke. See CARDAMINE,
Lady's Slipper. See CYPRIPEDIUM,
Lady's Tresses. See OPHRYS,
} BOTANY *Index.*

Lady Day, in *Law*, the 25th of March, being the annunciation of the Holy Virgin. See ANNUNCIATION.

LÆLIUS, CAIUS, a Roman consul and great orator, surnamed the *Wise*, distinguished himself in Spain in the war against Viriathus the Spanish general. He is highly praised by Cicero, who gives an admirable description of the intimate friendship which subsisted between Lælius and Scipio Africanus the Younger. His eloquence, his modesty, and his abilities, acquired him a great reputation; and he is thought to have assisted Terence in his comedies. He died about the year 126 B. C.

LÆNA, in antiquity, was a gown worn by the Roman augurs, and peculiar to their office. In this gown they covered their heads, when they made their observation on the flight of birds, &c. See AUGUR.

LAER. See BAMBOCCIA.

LÆSTRYGONES, the most ancient inhabitants of Sicily. Some suppose them to be the same as the people of Leontium, and to have been neighbours to the Cyclops. They fed on human flesh; and when Ulysses came on their coasts, they sunk his ships and devoured his companions. They were of a gigantic stature, according to Homer's description. A colony of them, as some suppose, passed over into Italy with Lamus at their head, where they built the town of Formiæ, whence the epithet of *Læstrygonia* is often used for that of *Formiana*.

LÆTIA, a genus of plants belonging to the polyandria class, and in the natural method ranking with those of which the order is doubtful. See BOTANY *Index*.

LÆVINUS, TORRENTINUS, commonly called *Vander Bekin*, or *Torrentin*, was a native of Ghent, and bred in the university of Louvain. He afterwards made the tour of Italy, where his virtues obtained him the friendship of the most illustrious personages of his time.

Lævius ‖ Lagunes.

time. On his return to the Low Countries, he was made canon of Liege, and vicar-general to Ernest de Baviere, bishop of that see. At length, having executed a successful embassy to Philip II. of Spain, he was rewarded with the bishopric of Antwerp; from whence he was translated to the metropolitan church of Mechlin, and died there in 1595. He founded a college of Jesuits at Louvain, to which he left his library, medals, and curiosities. He wrote several poems that obtained him the character of being, after Horace, the prince of lyric poets.

LÆVIUS, a Latin poet. It is not well known at what time he lived, but probably before the age of Cicero. A poem of his, entitled, *Erotopagnia*, i. e. *Love-Games*, is quoted by Aulus Gellius. Apuleius also quotes six lines from the same poet; but he does not tell from what work he borrowed them. Lævius had also composed a poem, entitled, *The Centaurs*, which Festus quotes under the title of *Petrarum*.

LAGAN, or LAGON. See FLOTSOM.

LAGEMAN (*lagammannus*), *homo habens legem*, or *homo legalis seu legitimus*; such as we call now "good men of the jury." The word is frequently used in Domesday, and the laws of Edward the Confessor, cap. 38.

LAGEN (*Lagena*), in ancient time, was a measure of wine, containing six sextarii: whence probably is derived our *flagon*. The lieutenant of the Tower has the privilege to take *unam lagenam vini ante malum et retro*, of all wine ships that come upon the Thames; and Sir Peter Leicester, in his Antiquities of Cheshire, interprets *lagena vini*, "a bottle of wine."

LAGERSTROEMIA, a genus of plants belonging to the polyandria class. See BOTANY *Index*.

LAGNY, a town of the Isle of France, with a famous Benedictine abbey. It is seated on the river Marne, in E. Long. 2. 45. N. Lat. 48. 50.

LAGOECIA, a genus of plants belonging to the pentandria class. See BOTANY *Index*.

LAGOON, an island in the South sea, lying in S. Lat. 18. 47. W. Long. 139. 28. It is of an oval form, with a lake in the middle, which occupies much the greatest part of it. The whole is covered with trees of different growth. It is inhabited by a race of Indians, tall, of a copper colour, with long black hair. Their weapons are poles or spikes, which are twice as long as themselves. Their habitations were seen under some clumps of palm trees, which formed very beautiful groves. This island was discovered by Captain Cook in April 1769.

LAGOPUS, the PTARMIGAN. See TETRAO, ORNITHOLOGY *Index*.

LAGOS, a sea port town of Portugal, in the province of Algarva, with a castle near the sea, where there is a good harbour, and where the English fleets bound to the Straits usually take in fresh water. W. Long. 8. 5. N. Lat. 36. 45.

LAGUNA, or *San Christoval de Laguna*, a considerable town in the island of Teneriffe, near a lake of the same name, on the declivity of a hill. It has very handsome buildings, and a fine square. W. Long. 16. 24. S. Lat. 28. 30.

LAGUNES OF VENICE, are marshes or lakes in Italy on which Venice is seated. They communicate with the sea, and are the security of the city. There are about 60 islands in these Lagunes, which together make a bishop's see. Eurano is the most considerable, next to those on which Venice stands.

Lagunes ‖ Lairesse.

LAGURUS, a genus of plants belonging to the triandria class, and in the natural method ranking under the 4th order, *Gramina*. See BOTANY *Index*.

LAHOLM, a sea port town of Sweden, in the province of Gothland, and territory of Halland, seated near the Baltic sea, with a castle and a harbour, in E. Long. 13. 13. N. Lat. 56. 35.

LAHOR, a large town of Asia, in Indostan, and capital of a province of the same name, and one of the most considerable in the country. It is of a vast circumference, and contains a great number of mosques, public baths, caravanseras, and pagods. It was once the residence of the Great Mogul; but since the removal of the court, the fine palace is going to decay. There is a magnificent walk of shady trees, which runs from this to Agra, that is upwards of 300 miles. Here they have manufactures of cotton cloths and stuffs of all kinds, and they make very curious carpets. E. Long. 75. 55. N. Lat. 31. 40.

LAINEZ, JAMES, a Spaniard, companion of Ignatius of Loyola, second general of the Jesuits, and a man of a more daring and political character. Having procured from Pope Paul IV. the perpetual generalship of the new order of Jesuits, after the death of Ignatius, he got the following privileges ratified by that pontiff, which show that he was in fact the founder of the worst part of their institution: 1. The right of making all sorts of contracts (without the privity of the community) vested in the generals and their delegates. 2. That of giving authenticity to all comments and explanations of their constitutions. 3. The power of making new, and altering the old: this opened the door to their bloody political tenets, not to be attributed to Loyola. 4. That of having prisons independent of the secular authority, in which they put to death refractory brethren. Lainez died in 1565, aged 53.

LAIRESSE, GERARD, an eminent Flemish painter, born at Liege in 1640. He received the principal part of his instruction from his father Renieve de Lairesse, though he is also accounted a disciple of Bartolet. He first settled at Utrecht, where he lived in distressed circumstances; but an accidental recommendation carrying him to Amsterdam, he soon exchanged want and obscurity for affluence and reputation. He was a perfect master of history; his designs are distinguished by the grandeur of the composition; and the back grounds, wherever the subjects required it, are rich in architecture, which is an uncommon circumstance in that country. He had the unhappiness to lose his sight several years before his death, which happened in 1711; so that the treatise on Design and Colouring, which passes under his name, was not wrote by him, but collected from his observations after he was blind, and published after his death. He had three sons, two of whom were painters; and also three brothers, Ernest, James, and John: Ernest and John painted animals, and James was a flower painter. He engraved a good deal in aquafortis: his works consist of 256 plates, above half of which were done with his own hand. He wrote an excellent book on the art, which

Laiteste || Lake.

which has been translated into English, and printed at London both in 4to and 8vo.

LAIS, a celebrated courtesan, daughter of Timandra, the mistress of Alcibiades, born at Hyccara in Sicily. She was carried away from her native place when Nicias the Athenian general invaded Sicily. She first began to sell her favours at Corinth for 10,000 drachmas, and the immense number of princes, noblemen, philosophers, orators, and plebeians, which courted her embraces, show how much commendation is owed to her personal charms. The expences which attended her pleasures, gave rise to the proverb of *Non cuivis homini contingit adire Corinthum.* Even Demosthenes himself visited Corinth for the sake of Lais; but when he was informed by the courtesan, that admittance to her bed was to be bought at the enormous sum of about 200l. English money, the orator departed, and observed that he would not buy repentance at so dear a price. The charms which had attracted Demosthenes to Corinth had no influence upon Xenocrates. When Lais saw the philosopher unmoved by her beauty, she visited his house herself; but there she had no reason to boast of the licentiousness or easy submission of Xenocrates. Diogenes the Cynic was one of her warmest admirers, and though filthy in his dress and manners, yet he gained her heart, and enjoyed her most unbounded favours. The sculptor Mycon also solicited the favours of Lais, but he met with coldness: he, however, attributed the cause of his ill reception to the whiteness of his hair, and dyed it of a brown colour, but to no purpose: "Fool that thou art (said the courtesan) to ask what I refused yesterday to thy father." Lais ridiculed the austerity of philosophers, and laughed at the weakness of those who pretend to have gained a superiority over their passions, by observing that the sages and philosophers of the age were not above the rest of mankind, for she found them at her door as often as the rest of the Athenians. The success which her debaucheries met at Corinth encouraged Lais to pass into Thessaly, and more particularly to enjoy the company of a favourite youth called Hippostratus. She was however disappointed: the women of the place, jealous of her charms, and apprehensive of her corrupting the fidelity of their husbands, assassinated her in the temple of Venus, about 340 years before the Christian era. Some suppose that there were two persons of this name, a mother and her daughter.

LAITY, the people as distinguished from the clergy; (see CLERGY). The lay part of his majesty's subjects is divided into three distinct states; the civil, the military, and the maritime. See CIVIL, MILITARY, and MARITIME.

LAKE, a collection of waters contained in some cavity in an inland place, of a large extent, surrounded with land, and having no communication with the ocean. Lakes may be divided into four kinds. 1. Such as neither receive nor send forth rivers. 2. Such as emit rivers, without receiving any. 3. Such as receive rivers, without emitting any. And, 4. Such as both receive and send forth rivers. Of the first kind, some are temporary, and others perennial. Most of those that are temporary owe their origin to the rain, and the cavity or depression of the place in which they are lodged: thus in India there are several such lakes made by the industry of the natives, of which some are a mile, and some two miles, in circuit; these are surrounded with a stone wall, and being filled in the rainy months, supply the inhabitants in dry seasons, who live at a great distance from springs or rivers. There are also several of this kind formed by the inundations of the Nile and the Niger; and in Muscovy, Finland, and Lapland, there are many lakes formed, partly by the rains, and partly by the melting of the ice and snow: but most of the perennial lakes, which neither receive nor emit rivers, probably owe their rise to springs at the bottom, by which they are constantly supplied. The second kind of lakes, which emit without receiving rivers, is very numerous. Many rivers flow from these as out of cisterns; where their springs being situated low within a hollow place, first fill the cavity and make it a lake, which not being capacious enough to hold all the water, it overflows and forms a river; of this kind is the Wolga, at the head of the river Wolga; the lake Odium at the head of the Tanais; the Adac, from whence one branch of the river Tigris flows; the Ozero, or White lake, in Muscovy, which is the source of the river Shaksna; the great lake Chaamay, which emits four very large rivers, which water the countries of Siam, Pegu, &c. viz. the Menan, the Ava, the Caipoumou, the Laquia, &c. The third species of lakes, which receive rivers but emit none, apparently owe their origin to those rivers which, in their progress from their source, falling into some extensive cavity, are collected together, and form a lake of such dimensions as may lose as much by exhalation as it continually receives from these sources: of this kind is that great lake, improperly called the *Caspian sea;* the lake Asphaltites, also called the *Dead sea;* the lake of Geneva, and several others. Of the fourth species, which both receive and emit rivers, we reckon three kinds, as the quantity they emit is greater, equal, or less, than they receive. If it be greater, it is plain that they must be supplied by springs at the bottom; if less, the surplus of the water is probably spent in exhalations; and if it be equal, their springs just supply what is evaporated by the sun.

Lake.

Lakes are also divided into those of fresh water and those of salt. Dr Halley is of opinion, that all great perennial lakes are saline, either in a greater or less degree; and that this saltness increases with time: and on this foundation he proposes a method for determining the age of the world.

Large lakes answer the most valuable purposes in the northern regions, the warm vapours that arise from them moderating the pinching cold of those climates; and, what is still a greater advantage, when they are placed in warmer climates at a great distance from the sea, the exhalations raised from them by the sun cause the countries that border upon them to be refreshed with frequent showers, and consequently prevent their being barren deserts.

LAKE, or *Lacque*, a preparation of different substances into a kind of magistery for the use of painters. One of the finest and first invented of which was that of *gum lacca* or *lacque;* from which all the rest, as made by the same process, are called by the common name *lacques.* See LACCA.

The method of preparing these in general may be

Lake. known by the example of that of the curcuma root of the shops, called *turmeric root;* the process for the making of which is this: Take a pound of turmeric root in fine powder, three pints of water, and an ounce of salt of tartar; put all into a glazed earthen vessel, and let them boil together over a clear gentle fire, till the water appears highly impregnated with the root, and will stain a paper of a beautiful yellow. Filtre this liquor, and gradually add to it a strong solution of rock alum in water, till the yellow matter is all curdled together and precipitated; after this pour the whole into a filtre of paper, and the water will run off and leave the yellow matter behind. It is to be washed many times with fresh water, till the water comes off insipid, and then is obtained the beautiful yellow called *lacque of turmeric*, and used in painting.

In this manner may a lake be made of any of the tinging substances that are of a somewhat strong texture, as madder, logwood, &c.; but it will not succeed in the more tender species, as the flowers of roses, violets, &c. as it destroys the nice arrangement of parts in those subjects on which the colour depends.

A yellow lake for painting is to be made from broom flowers in the following manner: Make a ley of pot ashes and lime reasonably strong; in this boil, at a gentle fire, fresh broom flowers till they are white, the ley having extracted all their colour; then take out the flowers, and put the ley to boil in earthen vessels over the fire; add as much alum as the liquor will dissolve; then empty this ley into a vessel of clean water, and it will give a yellow colour at the bottom. Let all settle, and decant off the clear liquor. Wash this powder, which is found at the bottom, with more water, till all the salts of the ley are washed off; then separate the yellow matter, and dry it in the shade. It proves a very valuable yellow.

Handmaid to the Arts, vol. i. p. 61.

Lake is at present seldom prepared from any other substance than scarlet rags, cochineal, and Brasil wood. The best of what is commonly sold is made from the colour extracted from scarlet rags, and deposited on the cuttle-bone; and this may be prepared in the following manner: Dissolve a pound of the best pearl ashes in two quarts of water, and filtre the liquor through paper; add to this solution two more quarts of water and a pound of clean scarlet shreds, and boil them in a pewter boiler till the shreds have lost their scarlet colour; take out the shreds and press them, and put the coloured water yielded by them to the other: in the same solution boil another pound of the shreds, proceeding in the same manner; and likewise a third and fourth pound. Whilst this is doing, dissolve a pound and a half of cuttle-fish bone in a pound of strong aquafortis in a glass receiver; adding more of the bone if it appear to produce any ebullition in the aquafortis; and pour this strained solution gradually into the other; but if any ebullition be occasioned, more of the cuttle-fish bone must be dissolved as before, and added till no ebullition appears in the mixture. The crimson sediment deposited by the liquor thus prepared is the lake: pour off the water; and stir the lake in two gallons of hard spring water, and mix the sediment in two gallons of fresh water; let this method be repeated four or five times. If no hard water can be procured, or the lake appears too purple, half an ounce of alum should be added to each quantity of water before it be used. Having thus sufficiently freed the lake from the salts, drain off the water through a filtre, covered with a worn linen cloth. When it has been drained to a proper dryness, let it be dropped through a proper funnel on clean boards, and the drops will become small cones or pyramids, in which form the lake must be suffered to dry, and the preparation is completed. Lake, Lama.

Lake may be prepared from cochineal, by gently boiling two ounces of cochineal in a quart of water; filtering the solution through paper, and adding two ounces of pearl-ashes dissolved in half a pint of warm water, and filtered through paper. Make a solution of cuttle-bone as in the former process; and to a pint of it add two ounces of alum dissolved in half a pint of water. Put this mixture gradually to that of the cochineal and pearl-ashes, as long as any ebullition appears to arise, and proceed as above. A beautiful lake may be prepared from Brasil wood, by boiling three pounds of it for an hour in a solution of three pounds of common salt in three gallons of water, and filtering the hot fluid through paper; add to this a solution of five pounds of alum in three gallons of water. Dissolve three pounds of the best pearl-ashes in a gallon and a half of water, and purify it by filtering; put this gradually to the other, till the whole of the colour appear to be precipitated, and the fluid be left clear and colourless. But if any appearance of purple be seen, add a fresh quantity of the solution of alum by degrees, till a scarlet hue be produced. Then pursue the directions given in the first process with regard to the sediment. If half a pound of seed lac be added to the solution of pearl-ashes, and dissolved in it before its purification by the filtre, and two pounds of the wood, and a proportional quantity of the common salt and water be used in the coloured solution, a lake will be produced that will stand well in oil or water, but is not so transparent in oil as without the seed lac. The lake with Brasil wood may be also made by adding half an ounce of anotto to each pound of the wood; but the anotto must be dissolved in the solution of pearl-ashes. There is a kind of beautiful lake brought from China; but as it does not mix well with either water or oil, though it dissolves entirely in spirit of wine, it is not of any use in our kinds of painting. This has been erroneously called *safflower*.

Orange LAKE, is the tinging part of anotto precipitated together with the earth of alum. This pigment, which is of a bright orange colour, and fit for varnish painting, where there is no fear of flying, and also for putting under crystal to imitate the vinegar garnet, may be prepared by boiling four ounces of the best anotto and one pound of pearl-ashes half an hour in a gallon of water; and straining the solution through paper. Mix gradually with this a solution of a pound and a half of alum in another gallon of water; desisting when no ebullition attends the commixture. Treat the sediment in the manner already directed for other kinds of lake, and dry it in square bits or round lozenges.

LAMA, a synonyme of the camelus pacos. See CAMELUS, MAMMALIA *Index*.

LAMA, the sovereign pontiff, or rather god, of the Asiatic Tartars, inhabiting the country of Barantola. The

Lama. The lama is not only adored by the inhabitants of the country, but also by the kings of Tartary, who send him rich presents, and go in pilgrimage to pay him adoration, calling him *lama congiu*, i. e. "god, the everlasting father of heaven." He is never to be seen but in a secret place of his palace, amidst a great number of lamps, sitting cross-legged upon a cushion, and adorned all over with gold and precious stones; where at a distance they prostrate themselves before him, it not being lawful for any to kiss even his feet. He is called the *great lama*, or *lama of lamas;* that is, "priest of priests." The orthodox opinion is, that when the grand lama seems to die either of old age or infirmity, his soul in fact only quits a crazy habitation to look for another younger or better; and it is discovered again in the body of some child, by certain tokens known only to the lamas or priests, in which order he always appears.

The following account of the ceremonies attending the inauguration of the infant lama in Thibet is extracted from the first volume of the Asiatic researches.

The emperor of China appears on this occasion to have assumed a very conspicuous part in giving testimony of his respect and zeal for the great religious father of his faith. Early in the year 1784, he dismissed ambassadors from the court of Pekin to Teeshoo Loomboo, to represent their sovereign in supporting the dignity of the high priest, and do honour to the occasion of the assumption of his office. Dalai Lama and the viceroy of Lassa, accompanied by all the court, one of the Chinese generals stationed at Lassa with a part of the troops under his command, two of the four magistrates of the city, the heads of every monastery throughout Thibet, and the emperor's ambassadors, appeared at Teeshoo Loombco, to celebrate this epocha in their theological institutions. The 28th day of the seventh moon, corresponding nearly, as their year commences with the vernal equinox, to the middle of October 1784, was chosen as the most auspicious for the ceremony of inauguration: a few days previous to which the lama was conducted from Terpaling, the monastery in which he had passed his infancy, with every mark of pomp and homage that could be paid by an enthusiastic people. So great a concourse as assembled either from curiosity or devotion was never seen before, for not a person of any condition in Thibet was absent who could join the suite. The procession was hence necessarily constrained to move so slow, that though Terpaling is situated at the distance of 20 miles only from Teeshoo Loomboo, three days expired in the performance of this short march. The first halt was made at Tsonduc; the second at Summaar, about six miles off, whence the most splendid parade was reserved for the lama's entry on the third day, the account of which is given by a person who was present in the procession. The road, he says, was previously prepared by being whitened with a wash, and having piles of stones heaped up with small intervals between on either side. The retinue passed between a double row of priests, who formed a street extending all the way from Summaar to the gates of the palace. Some of the priests held lighted rods of a perfumed composition that burn like decayed wood, and emit an aromatic smoke; the rest were furnished with the different musical instruments they use at their devotions, such as the gong, the cymbal, hautboy, trumpets, drums, and sea shells, which were all sounded in union with the hymn they chanted. The crowd of spectators was kept without the street, and none admitted on the high road but such as properly belonged to or had a prescribed place in the procession, which was arranged in the following order. Lama.

The van was led by three military commandants or governors of districts at the head of 6000 or 7000 horsemen armed with quivers, bows, and matchlocks. In their rear followed the ambassador with his suite, carrying his diploma, as is the custom of China, made up in the form of a large tube, and fastened on his back. Next the Chinese general advanced with the troops under his command, mounted, and accoutred after their way with fire arms and sabres; then came a very numerous group bearing the various standards and insignia of state; next to them moved a full band of wind and other sonorous instruments: after which were led two horses richly caparisoned, each carrying two large circular stoves disposed like panniers across the horse's back and filled with burning aromatic woods. These were followed by a senior priest, called a *lama*, who bore a box containing books of their form of prayer and some favourite idols. Next nine sumpter horses were led loaded with the lama's apparel; after which came the priests immediately attached to the lama's person for the performance of daily offices in the temple, amounting to about 7000; following them were two men each carrying on his shoulder a large cylindrical gold insignium embossed with emblematical figures (a gift from the emperor of China). The Duhunniers and Soopoons, who were employed in communicating addresses and distributing alms, immediately preceded the lama's bier, which was covered with a gaudy canopy, and borne by eight of the 16 Chinese appointed for this service. On one side of the bier attended the regent, on the other the lama's father. It was followed by the heads of the different monasteries, and as the procession advanced, the priests who formed the street fell into the rear and brought up the suite, which moved at an extremely slow pace, and about noon was received within the confines of the monastery, amidst an amazing display of colours, the acclamations of the crowd, solemn music, and the chanting of their priests.

The lama being safely lodged in the palace, the regent and Soopoon Choomboo went out, as is a customary compliment paid to visitors of high rank on their near approach, to meet and conduct Dalai Lama and the viceroy of Lassa, who were on the way to Teeshoo Loomboo. Their retinues encountered the following morning at the foot of Painom castle, and the next day together entered the monastery of Teeshoo Loomboo, in which both Dalai Lama and the viceroy were accommodated during their stay.

The following morning, which was the third after Teeshoo Lama's arrival, he was carried to the great temple, and about noon seated upon the throne of his progenitors; at which time the emperor's ambassador delivered his diploma, and placed the presents with which he had been charged at the lama's feet.

The three next ensuing days, Dalai Lama met Teeshoo Lama in the temple, where they were assisted by

Lama, Lamanon.

all the priests in the invocation and public worship of their gods. The rites then performed completed, as we understand, the business of inauguration. During this interval all who were at the capital were entertained at the public expence, and alms were distributed without reserve. In conformity likewise to previous notice circulated everywhere for the same space of time, universal rejoicings prevailed throughout Thibet. Banners were unfurled on all their fortresses, the peasantry filled up the day with music and festivity, and the night was celebrated by general illuminations. A long period was afterwards employed in making presents and public entertainments to the newly inducted lama, who at the time of his accession to the musnud, or, if we may use the term, pontificate of Teeshoo Loomboo, was not three years of age. The ceremony was begun by Dalai Lama, whose offerings are said to have amounted to a greater value, and his public entertainments to have been more splendid than the rest. The second day was dedicated to the viceroy of Lassa. The third to the Chinese general. Then followed the *culloong* or magistrates of Lassa, and the rest of the principal persons who had accompanied Dalai Lama. After which the regent of Teeshoo Lomboo, and all that were dependent on that government, were severally admitted, according to pre-eminence of rank, to pay their tribute of obeisance and respect. As soon as the acknowledgements of all those were received who were admissible to the privilege, Teeshoo Lama made in the same order suitable returns to each, and the consummation lasted 40 days.

Many importunities were used with Dalai Lama to prolong his stay at Teeshoo Loomboo; but he excused himself from encumbering the capital any longer with so numerous a concourse of people as attended on his movements, and deeming it expedient to make his absence as short as possible from the seat of his authority, at the expiration of 40 days he withdrew with all his suite to Lassa, and the emperor's ambassador received his dismission to return to China, and thus terminated this famous festival.

LAMANON, Robert Paul, a celebrated naturalist, was born at Salon in Provence, in the year 1752, of a respectable family. He was destined for the church, and sent to Paris to study divinity; but the acquaintance of philosophers soon made him relinquish his theological pursuits, and he turned his attention to chemistry and mineralogy. Yet he afterwards became a canon in the church; but the death of his father and elder brother caused him to resign an office to which he was never attached, and he now possessed the power of directing his own future exertions. One amiable trait in the character of Lamanon is highly worthy of notice, and that is, that he refused to accept of his paternal inheritance, but as an equal sharer with his brothers and sisters. When offered a considerable sum to resign his office of canon in favour of a certain individual, he replied, "the chapter of Arles did not sell me my benefice; I shall therefore restore it in the same manner that I received it," which was a conduct undoubtedly meritorious. Anxious to remove the veil which conceals the secrets of nature from mortal eyes, he travelled through Provence and Dauphiné, and scaled the Alps and Pyrenees. He reached the summit of rocks, and explored the abyss of caverns, weighed the air, analysed specimens, and in short considered himself qualified to form a new system of this world.

Lamanon, Lamb.

After some time he returned to Paris, and from thence went over to England; and although he was in imminent danger of being overwhelmed by the ungovernable fury of the waves, he ordered himself to be tied to the mainmast, that he might be enabled to contemplate more at leisure this grand and terrific spectacle. Instead of being dismayed, he was transported with the tremendous roar of thunder, the vivid flashes of lightning, the glancing spray with which he was almost incessantly covered; and in his own estimation this was the most exquisite day which he ever enjoyed.

During the time which Lamanon afterwards spent at Paris, he became one of the founders of the museum. Again resolving to revisit Switzerland and Italy, he went first to Turin, where he joined himself to the learned of that country. From Piedmont he went to Italy, returning by the way of Switzerland, where he explored the Alps, and ascended to the top of Mont Blanc; and on his return to Provence with the spoils of the countries which he had visited, he properly arranged the interesting fruits of his journey. While Lamanon was preparing for the press his interesting work on the Theory of the Earth, the French government conceived the design of completing the discoveries of Captain Cook, and the academy of sciences was charged with the selection of men qualified to rectify our notions of the southern hemisphere. Condorcet therefore made choice of Lamanon for advancing the progress of natural history connected with this great enterprise, and he received the invitation of that philosopher with the most eager transports. He set out for Paris, refused the salary offered him, took leave of his friends, and went directly for Brest. The armament under the command of the justly celebrated but unfortunate La Perouse, set sail on the 1st of August 1785; and having reached the island of Maouna, Lamanon went ashore with the crew of two boats, where he fell a sacrifice to the fury of the savages, bravely fighting in self-defence.

In the estimation of his eulogist M. Ponec, Lamanon seemed destined to effect some great revolution in science. His ideas were profound, his character energetic, his mind sagacious, and he possessed that lively curiosity which can draw instruction out of any thing, and which might have led him in time to the most interesting discoveries. His person was tall, his countenance highly expressive, his strength and activity almost incredible. His style as a writer is nervous, and he was eminently endowed with the precision of logical reasoning, which cannot fail to command attention and enforce persuasion.

LAMB, in *Zoology*, the young of the sheep kind. See Ovis, Mammalia *Index*.

Scythian Lamb, a kind of moss, which grows about the roots of fern in some of the northern parts of Europe and Asia, and sometimes assumes the form of a quadruped; so called from a supposed resemblance in shape to that animal. It has something like four feet, and its body is covered with a kind of down. Travellers report that it will suffer no vegetable to grow within a certain distance of its seat. Sir Hans Sloane read a memoir upon this plant before the Society; for which those who think it worth while may consult their Transactions,

Lamb. || Lambert.

actions, N° 245, p. 461. Mr Bell, in his "Account of a journey from St Petersburgh to Ispahan," informs us that he searched in vain for this plant in the neighbourhood of Astracan, when at the same time the more sensible and experienced amongst the Tartars treated the whole history as fabulous.

LAMBECIUS, PETER, born at Hamburgh in 1628, was one of the most learned men of his time. He went very young to study in foreign countries, at the expence of his uncle the learned Holstenius. He was chosen professor of history at Hamburgh in 1652, and rector of the college of that city in 1660. He had taken his degree of doctor of law in France before. He suffered a thousand vexations in his own country; because his enemies charged him with atheism, and censured his writings bitterly. He married a rich lady, but who was so very covetous that he left her in disgust within a fortnight. He went to Vienna, and from thence to Rome, where he publicly professed the Catholic religion. He returned to Vienna in 1662, where he was kindly received by the emperor, who appointed him his sublibrarian, and afterwards his principal librarian, with the title of *counsellor and historiographer;* in which employment he continued till his death, and gained a great reputation by the works he published, viz. 1. An Essay on Aulus Gellius. 2. The Antiquities of Hamburgh. 3. Remarks on Codinus's Antiquities of Constantinople, &c.

LAMBERT of Aschaffenburgh, a Benedictine monk, in the 11th century, wrote several works; among which is a history of Germany, from the year 1050 to 1077.

LAMBERT, *John*, general of the parliament's forces in the civil wars of the last century, was of a good family, and for some time studied the law in one of the inns of court; but upon the breaking out of the rebellion, went into the parliament army, where he soon rose to the rank of colonel, and by his conduct and valour performed many eminent services. But when Cromwell seemed inclined to assume the title of king, Lambert opposed it with great vigour, and even refused to take the oath required by the assembly and council to be faithful to the government; on which Cromwell deprived him of his commission, but granted him a pension of 2000l. a-year. This was an act of prudence rather than of generosity; as he well knew, that such genius as Lambert's, rendered desperate by poverty, was capable of attempting any thing.

Lambert being now divested of all employment, retired to Wimbleton house; where turning florist, he had the finest tulips and gilliflowers that could be got for love or money. Yet amidst these amusements he still nourished his ambition; for when Richard Cromwell succeeded his father, he acted so effectually with Fleetwood, Desborough, Vane, Berry, and others, that the new protector was obliged to surrender his authority; and the members of the long parliament, who had continued sitting till the 20th of April 1653, when Oliver dismissed them, were restored to their seats, and Lambert was immediately appointed one of the council of state, and colonel of a regiment of horse and another of foot. For this service the parliament presented him 1000l. to buy a jewel; but he distributed it among his officers. This being soon known to the parliament, they concluded that he intended to secure a party in the army. They therefore courteously invited him to come to London; but resolved, as soon as he should arrive, to secure him from doing any further harm. Lambert, apprehensive of this, delayed his return, and even refused to resign his commission when it was demanded of him and of eight of the other leading officers; and, marching up to London with his army, dislodged the parliament by force in October 1659. He was then appointed, by a council of the officers, major-general of the army, and one of the new council for the management of public affairs, and sent to command the forces in the north. But General Monk marching from Scotland into England to support the parliament, against which Lambert had acted with such violence, the latter, being deserted by his army, was obliged to submit to the parliament, and by their order was committed prisoner to the Tower; whence escaping, he soon appeared in arms with four troops under his command, but was defeated and taken prisoner by Colonel Ingoldsby.

Lambert || Lamech.

At the Restoration he was particularly excepted out of the act of indemnity. Being brought to his trial on the 4th of June 1662, for levying war against the king, this daring general behaved with more submission that the meanest of his fellow prisoners, and was by his majesty's favour reprieved at the bar, and sentenced to be confined during life in the island of Guernsey.

LAMBERT, *Anna Theresa de Marguenat de Courcelles, marchioness of*, an elegant moral writer, was the only daughter of Stephen Marguenat lord of Courcelles. In 1666 she married Henry de Lambert, who at his death was lieutenant-general of the army; and she afterwards remained a widow with a son and a daughter, whom she educated with great care. Her house was a kind of academy, to which persons of distinguished abilities regularly resorted. She died at Paris in 1773, aged 86. Her works, which are written with much taste, judgement, and delicacy, are printed in 2 vols. The advice of a mother to her son and daughter are particularly esteemed.

LAMBIN, DENNIS, an eminent classical commentator, was born at Montreuil-sur-Mer, in Picardy, and acquired great skill in polite literature. He lived for a long time at Rome; and at his return to Paris was made royal professor of the Greek language. He died in 1572, aged 56, of pure grief at the death of his friend Ramus, who was murdered at the massacre on St Bartholomew's day. He wrote commentaries on Plautus, Lucretius, Cicero, and Horace, and other works. His commentary on Horace is more particularly esteemed.

LAMECH, of the race of Cain, was the son of Methusael, and father of Jabal, Jubal, Tubal-cain, and Naamah, Gen. iv. 18, 19, 20, &c. Lamech is celebrated in Scripture for his polygamy, whereof he is thought to be the first author in the world. He married Adah and Zillah. Adah was the mother of Jabal and Jubal; and Zillah of Tubal-cain, and Naamah his sister. One day Lamech said to his wives, "Hear me, ye wives of Lamech; I have slain a man to my wounding, and a young man to my hurt. If Cain shall be avenged seven fold, truly Lamech seventy and seven fold." These words are an unintelligible riddle. The reader may consult the commentators. There is a tradition among the Hebrews, that Lamech growing blind,

Lamech || Lamiacum Bellum.

blind, ignorantly killed Cain, believing him to be some wild beast; and that afterwards he slew his own son Tubal-cain, who had been the cause of this murder, because he had directed him to shoot at a certain place in the thickets where he had seen something stir. See CAIN.

Several other suppositions are produced in order to explain this passage concerning Lamech, and all almost equally uncertain and absurd.

LAMECH, the son of Methuselah, and father of Noab. He lived a hundred fourscore and two years before the birth of Noah, (Gen. v. 25, 31.); and after that, he lived five hundred and ninety-five years longer: thus the whole time of his life was seven hundred and seventy-seven years, being born in the year of the world 874, and dying in the year of the world 1651.

LAMELLÆ, in *Natural History*, denotes very thin plates, such as the scales of fishes are composed of.

LAMENTATIONS, a canonical book of the Old Testament, written by the prophet Jeremiah, according to Archbishop Usher and some other learned men, who follow the opinion of Josephus and St Jerome, on occasion of Josiah's death. But this opinion does not seem to agree with the subject of the book, the lamentation composed by Jeremiah on that occasion being probably lost. The fifty-second chapter of the book of Jeremiah was probably added by Ezra, as a preface or introduction to the Lamentations: the two first chapters are employed in describing the calamities of the siege of Jerusalem: in the third the author deplores the persecutions he himself had suffered: the fourth treats of the desolation of the city and temple, and the misfortunes of Zedekiah: the fifth chapter is a prayer for the Jews in their dispersion and captivity: and at the close of all he speaks of the cruelty of the Edomites, who had insulted Jerusalem in her misery. All the chapters of this book, except the last, are in metre, and digested in the order of the alphabet; with this difference, that in the first, second, and fourth chapters, the first letter of every verse follows the order of the alphabet: but in the third the same initial letter is continued for three verses together. This order was probably adopted, that the book might be more easily learnt and retained. The subject of this book is of the most moving kind; and the style throughout lively, pathetic, and affecting. In this kind of writing the prophet Jeremiah was a great master, according to the character which Grotius gives of him, *Mirus in affectibus concitandis.*

LAMIA, in *Ancient Geography*, a town of the Phthiotis, a district of Thessaly. Famous for giving name to the *Bellum Lamiacum*, waged by the Greeks, on the Macedonians after Alexander's death.

LAMIACUM BELLUM happened after the death of Alexander, when the Greeks, and particularly the Athenians, incited by their orators, resolved to free Greece from the garrisons of the Macedonians. Leosthenes was appointed commander of a numerous force, and marched against Antipater, who then presided over Macedonia. Antipater entered Thessaly at the head of 13,000 foot and 600 horse, and was beaten by the superior force of the Athenians and of their Greek confederates. Antipater after this blow fled to Lamia, where he resolved, with all the courage and sagacity of a careful general, to maintain a siege with about 8000 or 9000 men that had escaped from the field of battle. Leosthenes, unable to take the city by storm, began to make a regular siege. His operations were delayed by the frequent sallies of Antipater: and Leosthenes being killed by the blow of a stone which he received, Antipater made his escape out of Lamia, and soon after, with the assistance of the army of Craterus brought from Asia, he gave the Athenians battle near Cranon; and though only 500 of their men were slain, yet they became so dispirited, that they sued for peace from the conqueror. Antipater at last with difficulty consented, provided they raised taxes in the usual manner, received a Macedonian garrison, defrayed the expences of the war, and, lastly, delivered into his hands Demosthenes and Hyperides, the two orators whose prevailing eloquence had excited their countrymen against him. These disadvantageous terms were accepted by the Athenians, yet Demosthenes had time to escape and poison himself. Hyperides was carried before Antipater, by whose orders, his tongue being previously cut out, he was put to death.

Lamiacum Bellum || Lamoignon.

LAMIÆ, a sort of demons who had their existence in the imaginations of the heathens, and were supposed to devour children. Their form was human, resembling beautiful women. Horace makes mention of them in his Art of Poetry. The name, according to some, is derived from *lanio*, "to tear;" or according to others, is a corruption of a Hebrew word signifying to devour. They are also called *Larvæ* or *Lemures.*

LAMINÆ, in *Physiology*, thin plates, or tables, whereof any thing consists; particularly the human skull, which are two, the one laid over the other.

LAMINIUM, in *Ancient Geography*, a town of the Carpatani in the Hither Spain; at the distance of seven miles from the head of the Anas or Guadiana: Now *Montiel*, a citadel of New Castile; and the territory, called *Ager Laminitanus*, is now *el Campo de Montiel*, (Clusius).

LAMIUM, DEAD-NETTLE, a genus of plants belonging to the didynamia class; and in the natural method ranking under the 42d order, *Verticillatæ.* See BOTANY *Index.*

LAMMAS-DAY, the first of August; so called, as some will have it, because lambs then grow out of season, as being too big. Others derive it from a Saxon word, signifying "loaf-mass," because on that day our forefathers made an offering of bread made with new wheat.

On this day the tenants who formerly held lands of the cathedral church in York, were bound by their tenure to bring a lamb alive into the church at high mass.

LAMOIGNON, CHRETIEN FRANCIS DE, marquis of Baville, and president of the parliament of Paris, was born in 1644. His father would not trust the education of his son to another, but took it upon himself, and entered into the minutest particulars of his first studies: the love of letters and a solid taste were the fruits the scholar reaped from this valuable education. He learned rhetoric in the Jesuits college, made the tour of England and Holland, and returned home the admiration of those meetings regularly held by persons of the first merit at his father's house. The several

Lamoignon, Lamp.

veral branches of literature were however only his amusement: the law was his real employ; and the eloquence of the bar at Paris owes its reformation from bombast and affected erudition to the plain and noble pleadings of M. Lamoignon. He was appointed the king's advocate general in 1673; which he discharged until 1698, when the presidentship of the parliament was conferred on him. This post he held nine years, when he was allowed to resign in favour of his eldest son: he was chosen president of the Royal Academy of Inscriptions in 1705. The only work he suffered to see the light was his *Pleader*, which is a monument of his eloquence and inclination to polite letters. He died in 1709.

LAMP, a vessel containing oil, with a lighted wick.

Lamps were in general use amongst the Jews, Greeks, and Romans. The candlestick with seven branches, placed in the sanctuary by Moses, and those which Solomon afterwards prepared for the temple, where crystal lamps filled with oil, and fixed upon the branches. The lamps or candlesticks made use of by the Jews in their own houses were generally put in a very high stand on the ground. The lamps supposed to be used by the foolish virgins, &c. in the gospel, were of a different kind.—According to critics and antiquaries, they were a sort of torches, made of iron or potters earth, wrapped about with old linen, and moistened from time to time with oil. Matth. xxv. 1, 2. The lamps of Gideon's soldiers were of the same kind. The use of wax was not unknown to the Romans, but they generally burnt lamps; hence the proverb *Tempus et oleum perdidi*, "I have lost my labour." Lamps were sometimes burnt in honour of the dead, both by Greeks and Romans.

Dr St Clair, in the Philos. Trans. N° 245, gives the description of an improvement on the common lamp. He proposes that it should be made two or three inches deep, with a pipe coming from the bottom almost as high as the top of the vessel. Let it be filled so high with water that it may cover the whole of the pipe at the bottom, that the oil may not get in at the pipe and so be lost. Then let the oil be poured in so as to fill the vessel almost brim full; and to the vessel must be adapted a cover having as many holes as there are to be wicks. When the vessel is filled and the wicks lighted, if water falls in by drops at the pipe, it will always keep the oil at the same height or very near it; the weight of the water being to that of the oil as $20\frac{8}{17}$ to 19, which in two or three inches makes no great difference. If the water runs faster than the oil wastes, it will only run over at the top of the pipe, and what does not run over will come under the oil, and keep it at the same height.

From experiments made in order to ascertain the expence of burning chamber oil in lamps, it appears, that a taper lamp, with eight threads of cotton in the wick, consumes in one hour $\frac{115}{1000}$ oz. of spermaceti oil at 2s. 6d. per. gallon; so that the expence of burning 12 hours is 4.57 farthings. This lamp gives as good a light as the candles of eight and ten in the pound; it seldom wants snuffing, and casts a strong and steady light. A taper, chamber, or watch lamp, with four ordinary threads of cotton in the wick, consumes 8.1664 oz. of spermaceti oil in one hour; the oil at 2s. 6d. per gallon, makes the expence of burning 12 hours only 2.34 farthings. Lamp.

Perpetual Lamps. The testimony of Pliny, St Austin, and others, have led many to believe that the ancients had the invention of perpetual lamps; and some moderns have attempted to find out the secret, but hitherto in vain. Indeed it seems no easy matter to find out either a perpetual wick or perpetual oil. The curious may read Dr Plot's conjectures on the subject in the Philos. Trans. N° 166; or in Lowthorp's Abridgement, vol. iii. p. 636. But few, we believe, will give themselves the trouble of searching for the secret, when they consider that the credulity of Pliny and of St Austin was such, that their testimony does not seem a sufficient inducement to us to believe a lamp was ever formed to burn 1500 or 1000 years: much less is it credible that the ancients had the secret of making one burn for ever.

Rolling Lamps. A machine AB, with two moveable circles DE, FG, within it; whose common centre of motion and gravity is at K, where their axes of motion cross one another. If the lamp KC, made pretty heavy and moveable about its axis HI, and whose centre of gravity is at C, be fitted within the inner circle, the common centre of gravity of the whole machine will fall between K and C; and by reason of the pivots A, B, D, E, H, I, will be always at liberty to descend: hence, though the whole machine be rolled along the ground, or moved in any manner, the flame will always be uppermost, and the oil cannot spill. Plate LXXXIX.

It is in this manner they hang the compass at sea; and thus should all the moon lanterns be made, that are carried before coaches, chaises, and the like.

Argand's Lamp. This is a very ingenious contrivance, and the greatest improvement in lamps that has yet been made. It is the invention of a citizen of Geneva; and the principle on which the superiority of the lamp depends, is the admission of a larger quantity of air to the flame than can be done in the common way. This is accomplished by making the wick of a circular form; by which means a current of air rushes through the cylinder on which it is placed with great force; and, along with that which has access to the outside, excites the flame to such a degree that the smoke is entirely consumed. Thus both the light and heat are prodigiously increased, at the same time that there is very considerable saving in the expence of oil, the combustion being exceedingly augmented by the quantity of air admitted to the flame; and that what in common lamps is dissipated in smoke is here converted into a brilliant flame.

This lamp is now very much in use; and is applied not only to the ordinary purposes of illumination, but also to that of a lamp furnace for chemical operations, in which it is found to exceed every other contrivance yet invented. It consists of two parts, viz. a reservoir for the oil, and the lamp itself. The reservoir is usually in the form of a vase, and has the lamp proceeding from its side. The latter consists of an upright metallic tube about one inch and six-tenths in diameter, three inches in length, and open at both ends. Within this is another tube about an inch in diameter, and nearly of an equal length; the space betwixt the two being left clear for the passage of the air. The inter-

nal

Lamp. nal tube is closed at the bottom, and contains another similar tube about half an inch in diameter, which is soldered to the bottom of the second. It is perforated throughout, so as to admit a current of air to pass through it; and the oil is contained in the space betwixt the tube and that which surrounds it. A particular kind of cotton cloth is used for the wick, the longitudinal threads of which are much thicker than the others, and which nearly fills the space into which the oil flows; and the mechanism of the lamp is such, that the wick may be raised or depressed at pleasure. When the lamp is lighted, the flame is in the form of a hollow cylinder; and by reason of the strong influx of air through the heated metallic tube, becomes extremely bright, the smoke being entirely consumed for the reasons already mentioned. The heat and light are still farther increased, by putting over the whole a glass cylinder nearly of the size of the exterior tube. By diminishing the central aperture, the heat and light are proportionably diminished, and the lamp begins to smoke. The access of air both to the external and internal surfaces of the flame is indeed so very necessary, that a sensible difference is perceived when the hand is held even at the distance of an inch below the lower aperture of the cylinder; and there is also a certain length of wick at which the effect of the lamp is strongest. If the wick be very short, the flame, though white and brilliant, emits a disagreeable and pale kind of light; and if very long, the upper part becomes brown, and smoke is emitted.

The saving of expence in the use of this instrument for common purposes is very considerable. By some experiments it appears that the lamp will continue to burn three hours for the value of one penny: and the following was the result of the comparison between the light emitted by it and that of a candle. The latter having been suffered to burn so long without snuffing, that large lumps of coally matter were formed upon the wick, gave a light at 24 inches distance equal to the lamp at 129 inches: whence it appeared that the light of the lamp was equal to 28 candles in this state. On snuffing the candle, however, its light was so much augmented, that it became necessary to remove it to the distance of 67 inches before its light became equal to that of the lamp at 129 inches; whence it was concluded that the light of the lamp was somewhat less than that of four candles fresh snuffed. At another trial, in which the lamp was placed at the distance of $131\frac{1}{2}$ inches, and a candle at the distance of 55 inches, the lights were equal. In these experiments the candles made use of were $10\frac{3}{4}$ inches long, and $2\frac{6}{10}$ inches in diameter. When the candle was newly snuffed, it appeared to have the advantage; but the lamp soon got the superiority; and on the whole it was concluded, that the lamp is at least equivalent to half a dozen of tallow candles of six in the pound; the expence of the one being only twopence halfpenny, and the other eightpence, in seven hours.

The best method of comparing the two lights together seems to be the following: Place the greater light at a considerable distance from a white paper, the smaller one being brought nearer or removed farther off as occasion requires. If an angular body be held before the paper, it will project two shadows; these two shadows can coincide only in part; and their angular extremities will, in all positions but one, be at some distance from each other; and being made to coincide in a certain part of their bulk, they will be bordered by a lighter shadow, occasioned by the exclusion of the light from each of the two luminous bodies respectively. These lighter shadows, in fact, are spaces of the white paper illuminated by the different luminous bodies, and may easily be compared together, because at a certain point they actually touch one another. If the space illuminated by the smaller light appear brightest, the light must be removed farther off, but the contrary if it appear more obscure. Lamp.

On cutting open one of Argand's wicks longitudinally, and thus reducing the circular flame to a straight-lined one, the lights appeared quite equal in power; but the circular one had by far the greatest effect in dazzling the eyes; though when the long flame was made to shine on the paper, not by the broadside, but in the direction of its length, it appeared more dazzling than the other. On placing this long flame at right angles to the ray of Argand's lamp, it projected no shadow: but when its length was placed in the direction of the ray, it gave a shadow bordered with two broad, well defined, and bright lines.

The broad-wicked lamp seems to have the advantage of the other, as requiring less apparatus; and indeed by this contrivance we may at the most trifling expence have a lamp capable of giving any degree of light we please. The only disadvantage attending either the one or the other is, that they cannot easily be carried from one place to another; and in this respect it does not seem possible by any means to bring lamps to an equality with candles.

The most economical method of lighting up large apartments by means of different lamps and candles, as it is of great importance, has occupied the attention of many ingenious men, particularly of Count Rumford and M. Hassenfratz. The following is the simple and accurate method proposed by the count, for measuring the relative quantities of light emitted by lamps differently constructed.

Let the two lamps or other burning bodies to be compared, be denominated A and B; and let them be placed at equal heights upon two light tables, or moveable stands, in a darkened room; let a sheet of clean white paper be equally spread out, and fastened upon the wainscot, or side of the room, at the same height from the floor as the lights; and let the lights be placed opposite to this sheet of paper, at the distance of six and eight feet from it, and the same from each other, in such a manner, that a line drawn from the centre of the paper perpendicular to its surface, shall bisect the angle formed by lines drawn from the lights to that centre; in which case, considering the paper as a plane speculum, the one light will be precisely in the line of reflection of the other.

If the one light be weaker than the other, and the weaker being placed at the distance of four feet from the centre of the paper, it should be found necessary, in order that the shadows may be of the same density, to remove the stronger light to the distance of eight feet from that centre; in that case, the real intensity of the stronger light will be to that of the weaker as 8^2 to 4^2, or as 4 to 1.

When the shadows are of equal density at any given point,

Lamp & Lampridius.

point, the intensity of the rays at that point are also equal. The greatest care must be taken in every case that the lights compared be properly trimmed, else the results of the experiments will be inconclusive.

Count Rumford found, from a variety of experiments conducted with his usual caution, that if oil is burnt in the lamp called Argand's lamp, instead of one of the common construction, the consumer has a clear saving of 15 per cent. an object of attention surely to those whose finances are circumscribed. The principal difference between these two lamps is, that in the common lamp much of the oil is volatilized, without undergoing the process of combustion, from which originates the disagreeable smell produced by it; whereas in Argand's lamp the heat is so intense at the top of the wick, that the oil is decomposed in its passage through it, the wick being so disposed as to admit free access to the air, for the purpose of aiding combustion.

The count having made experiments with different inflammable substances, in order to ascertain which is the cheapest or most economical, obtained the following results.

	Equal parts in weight.
Bees-wax.—A good wax candle, kept well snuffed, and burning with a clear bright flame,	100
Tallow.—A good tallow candle, kept well snuffed, and burning with a bright flame,	101
The same burning dim for want of snuffing,	229
Olive-oil—Burnt in an Argand's lamp, with a clear bright flame, without smoke,	129
Rape-oil—Burnt in the same manner,	125
Linseed-oil—Likewise burnt in the same manner,	120

This table, together with the current prices of the articles mentioned in it, will enable any person to ascertain the relative prices of light produced by these materials. It is worthy of observation, that 100 of Argand's lamps burning with fish oil, are equal to 218 common lamps, 285 spermaceti candles, 333 tallow ditto, or 546 wax candles, from which it evidently appears, that an Argand's lamp is vastly superior, in point of economy, to any other burning body commonly made use of in families or in shops.

Lamp-Black, among colourmen. See *Colour-Making*, N° 18, 19.—Substances painted with lamp-black and oil, are found to resist the effects of electricity to a surprising degree; so that in many cases even lightning itself seems to have been repelled by them.

LAMPADARY, an officer in the ancient church of Constantinople, so called from his employment, which was to take care of the lamps, and to carry a taper before the emperor or patriarch when they went to church or in procession.

LAMPAS, in *Farriery*. See Farriery *Index*.

LAMPREY. See Petromyzon, Ichthyology *Index*.

LAMPRIDIUS, Ælius, a Latin historian, who lived under the emperors Dioclesian and Constantine the Great. Of his writing there are extant the lives of four emperors, Antoninus, Commodus, Diadumenus, and Heliogabalus. Some attribute the life of Alexander Severus to him; but the MS. in the Palatine library ascribes it to Spartian.

Lampridius & Lancashire.

Lampridius, *Benedict*, of Cremona, a celebrated Latin poet of the 16th century. He taught Greek and Latin at Rome and at Padua, until he was invited to Mantua by Frederick Gonzaga to undertake the tuition of his son. We have epigrams and lyric verses of this writer, both in Greek and Latin, which were printed separately, as well as among the *Delicia* of the Italian poets.

LAMPSACUS, or Lampsacum, in *Ancient Geography*, a considerable city of Mysia; more anciently called *Pityea*, (Homer), because abounding in pine trees, a circumstance confirmed by Pliny; situated at the north end or entrance of the Hellespont into the Propontis, with a commodious harbour, opposite to Callipolis, in the Thracian Chersonesus. It was assigned by Artaxerxes to Themistocles, for furnishing his table with wine, in which the country abounded. It was saved from the ruin threatened by Alexander because in the interest of Persia, by the address of Anaximenes the historian, sent by his fellow-citizens to avert the king's displeasure; who hearing of it, solemnly declared he would do the very reverse of Anaximenes's request, who therefore begged the king utterly to destroy it, which he could not do because of his oath. *Lampsacius* the epithet, denoting *lascivus*, the character of the people: still called *Lampsacus*. E. Long. 28° N. Lat. 40. 12.

LAMPYRIS, the Fire-fly, a genus of insects belonging to the coleoptera order. See Entomology *Index*.

LANCARIM spring, the name of a mineral water of Glamorganshire. It has its name from a town near which it rises; and has been long famous for the cure of the king's evil. The spring is very clear, and rises out of a pure white marl. The cures that have been performed there, are proofs of a real power in the water. The persons who come for relief not only drink of the spring, but also bathe the parts affected afterwards in the water.

LANCASHIRE, a large maritime province of England, washed by the Irish sea on the west; bordering on the north with part of Cumberland and Westmoreland; bounded on the east by the west riding of Yorkshire, and on the south by Cheshire; extending 73 miles in length, and 41 in breadth, comprehending 6 hundreds, 63 parishes, 27 market towns, 894 villages, with 148,552 houses, and 828,309 inhabitants in the year 1811.

The eastern parts of the province are rocky, and in the northern districts we see many single mountains remarkably high, such as Ingleborough hill, Cloughborough hill, Pendle hill, and Longridge hill. Nor is there any want of wood in this county, either for timber or fuel; witness Wiersdale forest and Bowland forest to the northward, and Simon's wood in the southern part of Lancashire.

This county is well watered with rivers and lakes. Among the lakes or meres of Lancashire, we reckon the Winander mere; and the Kiningston mere, which, though neither so large nor so well stored with fish, yet affords plenty of excellent char. There was on the south side of the Ribble another lake called *Marton*, several miles in circumference, which is now drained, and converted into pasture ground. In this operation, the workmen found a great quantity of fish, together with eight canoes, resembling those of America, sup-

Lancashire.

posed to have been used by the ancient British fishermen. Besides these meres or lakes, this county abounds with morasses and mosses, from which the inhabitants dig excellent peat or turf for fuel, as well as marl for manuring the ground, and trunks of old fir trees, supposed to have lain there since the general deluge. Some of these are so impregnated with turpentine, that when divided into splinters, they burn like candles, and are used for that purpose by the common people. There is a great variety of mineral waters in this county, some periodical springs, and one instance of a violent eruption of water at Kirky in Fourness. The most remarkable chalybeate spaws are those of Latham, Wigan, Stockport, Burnly, Bolton, Plumpton, Middleton, Strangeways, Lancaster, Larbrick, and Chorly. At Ancliff, in the neighbourhood of Wigan, is a fountain called the *Burning Well*, from whence a bituminous vapour exhales, which being set on fire by a candle burns like brandy, so as to produce a heat that will boil eggs to a hard consistence, while the water itself retains its original coldness*. There is at Barton a fountain of salt water, so strongly impregnated with the mineral, as to yield six times as much as can be extracted from the same quantity of sea water. At Rogham, in Fourness, there is a purging saline fountain; and in the neighbourhood of Rassal, where the ground is frequently overflowed by the sea, a stream descends from Hagbur hills, which, in the space of seven years, is said to convert the marl into a hard freestone fit for building. The air of Lancashire is pure, healthy, and agreeable, an observation equally applicable even to the fens and the sea shore, according to the experience of those who have dwelt on that coast for many years. The soil is various in different parts of the county, poor and rocky on the hills, fat and fertile in the valleys and champaign country. The colour of the peat is white, gray, or black, according to the nature of the composition and the degree of putrefaction which the ingredients have undergone. There is a bituminous earth about Ormskirk, that smells like the oil of amber, and indeed yields an oil of the same nature, both in its scent and medicinal effects, which moreover reduces raw flesh to the consistence of mummy; this earth burns like a torch, and is used as such by the country people. The metals and minerals of this county consist of lead, iron, copper, antimony, black lead, lapis calaminaris, spar, green vitriol, alum, sulphur, pyrites, freestone, and pit and cannel coal.

* See *Burning Well.*

The level country produces plenty of wheat and barley, and the skirts of the hills yield good harvests of excellent oats: very good hemp is raised in divers parts of the province; and the pasture which grows in the valley is so peculiarly rich, that the cattle which feed upon it are much larger and fatter than in any other part of England. No part of the world is better supplied than Lancashire with provisions of all kinds, and at a very reasonable rate; such as beef, veal, mutton, lamb, pork, poultry, and game of all sorts, caught upon the moors, heaths, and commons, in the hilly part of the shire. Besides the sea fowl common to the shores of England, such as duck, easterlings, teal, and plover, many uncommon birds are observed on the coast of Lancashire, the sea crow, variegated with blue and black, the puffin, the cormorant, the curlew, the razor-bill, the copped wren, the redshanks, the swan, the tropic bird, the king's fisher, &c.

Lancashire.

The chief manufactures of this county are woollen and cotton cloths of various kinds, tickings, and cotton velvets, for which Manchester is particularly famous. The principal rivers are the Mersey, which parts Cheshire and this county; and the Ribble, which rises in Yorkshire, and enters this county at Clithero, running south-west by Preston into the Irish sea. Besides these there are many lesser streams. The navigation made by his grace the duke of Bridgewater in this county is highly worthy of notice. The canal receives vessels of 60 tons burden, and is carried over two rivers, the Mersey and the Irwell. The sough or adit, which was necessary to be made, in order to drain the water from the coal mines, is rendered navigable for boats of six or seven tons burden, and forms a kind of subterraneous river, which runs about a mile and a half under ground, and communicates with the canal. This river leads to the head of the mines, is arched over with brick, and is just wide enough for the passage of the boats: at the mouth of it are two folding doors, which are closed as soon as you enter, and you then proceed by candle light, which casts a livid gloom, serving only to make darkness visible. But this dismal gloom is rendered still more awful by the solemn echo of this subterraneous water, which returns various and discordant sounds. One while you are struck with the grating noise of engines, which by a curious contrivance let down the coals into the boats; then again you hear the shock of an explosion, occasioned by the blowing up the hard rock, which will not yield to any other force than that of gunpowder; the next minute your ears are saluted by the songs of merriment from either sex, who thus beguile their labours in the mine. You have no sooner reached the head of the works, than a new scene opens to your view. There you behold men and women almost in their primitive state of nature, toiling in different capacities, by the glimmering of a dim taper, some digging coal out of the bowels of the earth; some again loading it in little waggons made for the purpose; others drawing those waggons to the boats. To perfect this canal, without impeding the public roads, bridges are built over it, and where the earth has been raised to preserve the level, arches are formed under it; but what principally strikes every beholder, is a work raised near Barton bridge, to convey the canal over the river Mersey. This is done by means of three stone arches, so spacious and lofty, as to admit vessels sailing through them; and indeed nothing can be more singular and pleasing, than to observe large vessels in full sail under the aqueduct, and at the same time the duke of Bridgewater's vessels sailing over all, near 50 feet above the navigable river. By this inland navigation communication has been made, with the rivers Mersey, Dee, Ribble, Ouse, Trent, Derwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles in the counties of Lincoln, Nottingham, York, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c.

Lancashire was erected into a county palatine by Edward III. who conferred it as an appendage on his son John of Gaunt, thence called *duke of Lancaster*: but the

Lancashire || Lance.

the duchy contained lands that are not in Lancashire, and among other demesnes, the palace of the Savoy, and all that district in London, which indeed belong to it at this day. The revenues of this duchy are administered by a court which sits at Westminster, and a chancery court at Preston, which has a seal distinct from that of the county palatine. The title of *Lancaster* distinguished the posterity of John of Gaunt from those of his brother, who succeeded to the duchy of York, in their long and bloody coutest for the crown of England. Lancashire sends two members to parliament for the county; and 12 for the six boroughs of Lancaster, Preston, Newton, Wigan, Clithero, and Liverpool.

LANCASTER, the capital of the county of Lancashire in England, is pleasantly situated on the south side of the river Lun, over which there is a handsome stone bridge. It is an ancient town, and is supposed to have been the *Longovicum* of the Romans. King John confirmed to the burgesses all the liberties he had granted to those of Bristol; and Edward III. granted that pleas and sessions should be held there, and nowhere else in the county. It is governed by a mayor, recorder, 7 aldermen, 2 bailiffs, 12 capital burgesses, 12 common burgesses, a town clerk, and 2 serjeants at mace. The assizes are held in the castle, where is also the county gaol. It carries on a very considerable trade with Jamaica and the other islands in the West Indies, as also with Portugal, Hamburgh, &c. There is a market on Wednesday by grant, and another on Saturday by prescription, besides one every other Wednesday throughout the year for cattle; and three fairs, in May, July, and October. The castle is not large, but neat and strong. Not very long ago, in digging a cellar, there were found several Roman utensils and vessels for sacrifices, as also the coins of Roman emperors; so that it is supposed there was here a Roman fortress. On the top of the castle is a square tower, called *John of Gaunt's chair*, whence there is a charming prospect of the adjacent country, and especially towards the sea, where is an extensive view even to the Isle of Man. There is but one church, a fine Gothic building. It is placed on the same elevation, and from some points of view forms one group with the castle, which gives the mind a most magnificent idea of this important place. The late considerable additional new streets and a new chapel, with other improvements, give an air of elegance and prosperity to the town, and the new bridge of 5 equal elliptic arches, in all 549 feet in length, adds not a little to the embellishment and conveniency of the place. Adjoining to the castle, the new gaol is erected on an improved plan. On the side of the hill below it, hangs a piece of a Roman wall, called *Wery-Wall*. By means of inland navigation, Lancaster has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c. although such extensive communication was once considered impracticable. Population 9247. For its peculiar government, see *Duchy-Court*.

LANCE, Lancea, a spear; an offensive weapon worn by the ancient cavaliers, in form of a half pike. The lance consisted of three parts, the shaft or handle, the wings, and the dart. Pliny attributes the invention of lances to the Ætolians. But Varro and Aulus Gellius say, the word lance is Spanish; whence others conclude the use of this weapon was borrowed by the people of Italy from the Spaniards. Diodorus Siculus derives it from the Gaulish, and Festus from the Greek λογχη, which signifies the same.

Lance || Lanch.

Lance, or *Sand-eel*. See Ammodytes, Ichthyology *Index*.

Lanceolated leaf. See Botany *Index*.

LANCET, a chirurgical instrument, sharp-pointed and two-edged, chiefly used for opening veins in the operation of phlebotomy or bleeding; also for laying open abscesses, tumours, &c.

LANCH, a peculiar sort of long boat, used by the French, Spanish, and Italian shipping, and in general by those of other European nations when employed in voyaging in the Mediterranean sea.

A lanch is proportionably longer, lower, and more flat bottomed than the long boat; it is by consequence less fit for sailing, but better calculated for rowing and approaching a flat shore. Its principal superiority to the long boat, however, consists in being by its construction much fitter to under-run the cable; which is a very necessary employment in the harbours of the Levant sea, where the cables of different ships are fastened across each other, and frequently render this exercise extremely necessary.

Lanch, is also the movement by which the ship or boat descends from the shore, either when she is at first built, or at any time afterwards.

To facilitate the operation of lanching, and prevent any interruption therein, the ship is supported by two strong platforms, laid with a gradual inclination to the water, on the opposite side of her keel, to which they are parallel. Upon the surface of this declivity are placed two corresponding ranks of planks, which compose the base of a frame, called the *cradle*, whose upper part envelopes the ship's bottom, whereto it is securely attached. Thus the lower surface of the cradle, conforming exactly to that of the frame below, lies flat upon it lengthwise, under the opposite sides of the ship's bottom; and as the former is intended to slide downwards upon the latter, carrying the ship along with it, the planes or faces of both are well daubed with soap and tallow.

The necessary preparations for the lanch being made, all the blocks and wedges, by which the ship was formerly supported are driven out from under her keel, till her whole weight gradually subsides upon the platforms above described, which are accordingly called the *ways*. The shores and stanchions, by which she is retained upon the stocks till the period approaches for lanching, are at length cut away, and the screws applied to move her if necessary. The motion usually begins on the instant when the shores are cut, and the ship slides downward along the ways, which are generally prolonged under the surface of the water, to a sufficient depth to float her as soon as she arrives at the farthest end thereof.

When a ship is to be lanched, the ensign, jack, and pendant, are always hoisted, the last being displayed from a staff erected in the middle of the ship.

Ships of the first rate are commonly constructed in dry docks, and afterwards floated out, by throwing open the flood gates, and suffering the tide to enter as soon as they are finished.

Lancerota
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Land.

LANCEROTA, one of the Canary islands, subject to Spain, and situated in W. Long. 13. 26. N. Lat. 29. 8. It is about 32 miles in length and 22 in breadth. The ancient inhabitants were negroes, very strong, active, and swift of foot. There is a ridge of hills runs quite through it, on which are fed a good number of sheep and goats. They have but few black cattle, still fewer camels, and a very few small horses. The valleys are dry and sandy, yet they produce a small quantity of wheat and barley. This island was first discovered in 1417. In 1596 it was taken by the English under the command of the earl of Cumberland; after which it was better fortified than before. There is in this island a city called also *Lancerota*, which, at the time the earl of Cumberland was there, consisted only of about 100 houses, all poor buildings, generally of one story, and covered with reeds or straw laid upon a few rafters, and over all a coat of dirt hardened by the sun. There was also a church which had no windows in it, and was supplied with light only by the door.

LANCIANO, a considerable town of Italy, in the kingdom of Naples, and in the Hither Abruzzo, with an archbishop's see; famous for its fairs, which are held in July and August. It is seated on the river Feltrino near that of Sangor. E. Long. 14. 20. N. Lat. 42. 12.

LANCISI, John Marca, an eminent Italian physician, was born at Rome in 1564. From his earliest years he had a turn to natural history; and studied botany, chemistry, anatomy, and medicine, with great vigour. In 1688 Pope Innocent XI. appointed him his physician and private chamberlain, notwithstanding his youth; and Cardinal Altieri Camerlinga made him his vicar for the installation of doctors in physic, which Pope Clement XI. gave him as long as he lived, as well as continued to him the appointments conferred on him by his predecessor. He died in 1710, after giving his fine library of more than 20,000 volumes to the hospital of the Holy Ghost for the use of the public. This noble benefaction was opened in 1716, in the presence of the pope and most of the cardinals. He wrote many works which are esteemed, the principal of which were collected together, and printed at Geneva in 1718, in 2 vols. 4to.

LAND, in a general sense, denotes *terra firma*, as distinguished from *sea*.

Land, in a limited sense denotes arable ground. See Agriculture.

Land, in the sea language, makes part of several compound terms; thus, *land-laid*, or, *to lay the land*, is just to lose sight of it. *Land-locked*, is when land lies all round the ship, so that no point of the compass is open to the sea. If she is at anchor in such a place, she is said to ride *land-locked*, and is therefore concluded to ride safe from the violence of the winds and tides. *Land-mark*, any mountain, rock, steeple, tree, &c. that may serve to make the land known at sea. *Land is shut in*, a term used to signify that another point of land hinders the sight of that from which the ship came. *Land-to*, or the ship *lies land-to*; that is, she is so far from shore, that it can only just be discerned. *Land-turn* is a wind that in almost all hot countries blows at certain times from the shore in the night. *To set the land*; that is, to see by the compass how it bears. Land.

Land Tax, one of the annual taxes raised upon the subject. See Tax.

The land tax, in its modern shape has superseded all the former methods of rating either property or persons in respect of their property, whether by tenths or fifteenths, subsidies on land, hydages, scutages, or talliages: a short explication of which will, however, greatly assist us in understanding our ancient laws and history.

Tenths and fifteenths were temporary aids issuing out of personal property, and granted to the king by parliament. They were formerly the real tenth or fifteenth part of all the moveables belonging to the subject; when such moveables, or personal estates, were a very different and a much less considerable thing than what they usually are at this day. Tenths are said to have been first granted under Henry II. who took advantage of the fashionable zeal for croisades to introduce this new taxation, in order to defray the expence of a pious expedition to Palestine, which he really or seemingly had projected against Saladine emperor of the Saracens, whence it was originally denominated the *Saladine tenth*. But afterwards fifteenths were more usually granted than tenths. Originally the amount of these taxes was uncertain, being levied by assessments new made at every fresh grant of the commons, a commission for which is preserved by Matthew Paris: but it was at length reduced to a certainty in the eighth year of Edward III. when, by virtue of the king's commission, new taxations were made of every township, borough, and city in the kingdom, and recorded in the exchequer; which rate was, at that time, the fifteenth part of the value of every township, the whole amounting to about 29,000l. and therefore it still kept up the name of a *fifteenth*, when, by the alteration of the value of money and the increase of personal property, things came to be in a very different situation. So that when, of later years, the commons granted the king a fifteenth, every parish in England immediately knew their proportion of it; that is, the same identical sum that was assessed by the same aid in the eighth of Edward III.; and then raised it by a rate among themselves, and returned it into the royal exchequer.

The other ancient levies were in the nature of a modern land tax: for we may trace up the original of that charge as high as to the introduction of our military tenures; when every tenant of a knight's fee was bound, if called upon, to attend the king in his army for 40 days in every year. But this personal attendance growing troublesome in many respects, the tenants found means of compounding for it, by first sending others in their stead, and in process of time by making a pecuniary satisfaction to the crown in lieu of it. This pecuniary satisfaction at last came to be levied by assessments, at so much for every knight's fee, under the name of scutages; which appear to have been levied for the first time in the fifth year of Henry II. on account of his expedition to Toulouse, and were then (Sir Wm. Blackstone apprehends) mere arbitrary compositions, as the king and the subject could agree. But this precedent being afterwards abused into a means

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Land. of oppression (by levying scutages on the landholders by the king's authority only, whenever our kings went to war, in order to hire mercenary troops and pay their contingent expences), it became thereupon a matter of national complaint; and King John was obliged to promise, in his *magna charta*, that no scutage should be imposed without the consent of the common council of the realm.

Of the same nature with scutages upon knights fees were the assessments of hydage upon all other lands, and of talliage upon cities and boroughs. But they all gradually fell into disuse, upon the introduction of subsidies, about the time of King Richard II. and King Henry IV. These were a tax, not immediately imposed upon property, but upon persons in respect of their reputed estates, after the nominal rate of 4s. in the pound for lands, and 2s. 6d. for goods; and for those of aliens in a double proportion. But this assessment was also made according to an ancient valuation, wherein the computation was so very moderate, and the rental of the kingdom was supposed to be so exceeding low, that one subsidy of this sort did not, according to Sir Edward Coke, amount to more than 70,000l. whereas a moderate land tax at the same rate produces two millions. It was anciently the rule never to grant more than one subsidy and two fifteenths at a time: but this rule was broke through for the first time on a very pressing occasion, the Spanish invasion in 1588; when the parliament gave Queen Elizabeth two subsidies and four fifteenths. Afterwards, as money sunk in value, more subsidies were given; and we have an instance, in the first parliament of 1640, of the king's desiring 12 subsidies of the commons, to be levied in three years; which was looked upon as a startling proposal; though Lord Clarendon tells us that the speaker, Serjeant Glanville, made it manifest to the house, how very inconsiderable a sum 12 subsidies amounted to, by telling them he had computed what he was to pay for them: and when he named the sum, he being known to be possessed of a great estate, it seemed not worth any farther deliberation. And, indeed, upon calculation, we shall find, that the total amount of these 12 subsidies, to be raised in three years, is less than what is now raised in one year by a land tax of 2s. in the pound.

The grant of scutages, talliages, or subsidies by the commons, did not extend to spiritual preferments; those being usually taxed at the same time by the clergy themselves in convocation; which grants of the clergy were confirmed in parliament; otherwise they were illegal, and not binding; as the same noble writer observes of the subsidies granted by the convocation, which continued sitting after the dissolution of the first parliament in 1640. A subsidy granted by the clergy was after the rate of 4s. in the pound, according to the valuation of their livings in the king's books; and amounted, Sir Edward Coke tells us, to about 20,000l. While this custom continued, convocations were wont to sit as frequently as parliaments; but the last subsidies, thus given by the clergy, were those confirmed by statute 15 Car. II. c. 10. since which another method of taxation has generally prevailed, which takes in the clergy as well as the laity: in recompense for which the beneficed clergy have from that period been allowed to vote at the election of knights of the shire; and thenceforward also the practice of giving ecclesiastical subsidies hath fallen into total disuse. Land.

The lay subsidy was usually raised by commissioners appointed by the crown, or the great officers of state: and therefore in the beginning of the civil wars between Charles I. and his parliament, the latter having no other sufficient revenue to support themselves and their measures, introduced the practice of laying weekly and monthly assessments of a specific sum upon the several counties of the kingdom; to be levied by a pound rate on lands and personal estates; which were occasionally continued during the whole usurpation, sometimes at the rate of 120,000l. a month, sometimes at inferior rates. After the Restoration, the ancient method of granting subsidies, instead of such monthly assessments, was twice, and twice only, renewed; viz. in 1663, when four subsidies were granted by the temporality and four by the clergy; and in 1670, when 800,000l. was raised by way of subsidy, which was the last time of raising supplies in that manner. For the monthly assessments being now established by custom, being raised by commissioners named by parliament, and producing a more certain revenue; from that time forwards we hear no more of subsidies, but occasional assessments were granted as the national emergencies required. These periodical assessments, the subsidies which preceded them, and the more ancient scutage, hydage, and talliage, were to all intents and purposes a land tax; and the assessments were sometimes expressly called so. Yet a popular opinion has prevailed, that the land tax was first introduced in the reign of King William III.; because in the year 1692 a new assessment or valuation of estates was made throughout the kingdom; which, though by no means a perfect one, had this effect, that a supply of 500,000l. was equal to 1s. in the pound of the value of estates given in. And, according to this enhanced valuation, from the year 1693 to the present, a period of near a century, the land tax has continued an annual charge upon the subject; about half the time at 4s. in the pound, sometimes at 3s. sometimes at 2s. twice at 1s. but without any total intermission. The medium has been 3s. 3d. in the pound; being equivalent to 23 ancient subsidies, and amounting annually to more than a million and a half of money. The method of raising it is by charging a particular sum upon each county, according to the valuation given in, A. D. 1692; and this sum is assessed and raised upon individuals (their personal estate, as well as real, being liable thereto) by commissioners appointed in the act, being the principal landholders in the county and their officers.

An act passes annually for the raising in general, 2,037,627l. 9s. 10½d. by the above said tax at 4s. in the pound; whereof there shall be raised in the several counties in England, according to the proportions expressed in the act, 1,989,673l. 7s. 10½d.; and in Scotland, 47,954l. 1s. 2d. by an eight months cess of 5994l. 5s. 1½d. *per mensem*, to be raised out of the land rent, and to be paid at four terms, as specified in the act, by two months amount each time.

Land Waiter, an officer of the customhouse, whose duty is, upon landing any merchandise, to examine, taste, weigh, measure them, &c. and to take an account thereof.

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Landen.

thereof. In some ports they also execute the office of a coast waiter. They are likewise occasionally styled *searchers*, and are to attend and join with the patent searcher in the execution of all cockets for the shipping of goods to be exported to foreign parts; and in cases where drawbacks on bounties are to be paid to the merchant on the exportation of any goods, they, as well as the patent searchers, are to certify the shipping thereof on the debentures.

LANDAFF, a town or village of Glamorganshire in South Wales, with a bishop's see, and on that account has the title of a *city*. It is seated upon an ascent on the river Taff, or Tave, near Cardiff; but the cathedral stands on a low ground, and is a large stately building. The original structure was built about the beginning of the 12th century. The building now used as the cathedral includes part of the body of the ancient one; but is in other respects as modern as the present century, about the middle of which the old church underwent such reparation as was almost equivalent to rebuilding. The ruins are at the west end of the modern church, and consist of the original western door-way, and part of the north and south sides. The arch over the door is circular, and has a well carved episcopal statue immediately over it. On the upper part of the front under which this door stands is a whole length figure of the Virgin Mary, with a cross on the apex of the building. In this front are two rows of neat pointed arches for windows; and on the north and south sides above mentioned are two circular door-cases half sunk in the earth. These ruins exhibit an aspect very different from the present cathedral, the new part of which the architect formed principally on the Roman model, without considering how incongruous this style of architecture is with the plan pursued in the ancient part.—Landaff is a place of but small extent, and has no market. It is a port town, however, and carries on a good trade, as it has a very tolerable harbour that opens into the river Severn about four miles distant. The ruins of the bishop's palace show it to have been castellated. It was built in 1120, and was destroyed by Henry IV. Population 504 in 1811. W. Long. 3. 20. N. Lat. 51. 33.

LANDAU, an ancient, handsome, and very strong town in Lower Alsace. It was formerly imperial, and belonged to Germany, till the treaty of Munster, when it was given up to France; but she lost it again in 1815. It is seated on the river Zurich, in a pleasant fertile country. It was severely bombarded by the allies in 1793, but they were obliged to raise the siege. E. Long. 8. 12. N. Lat. 49. 12.

LANDEN, a town of the Austrian Netherlands, in Brabant, famous for a battle gained over the French by the allies, in July 1693, when 20,000 men were killed. It is seated on the river Beck, in E. Long. 5. 5. N. Lat. 52. 45.

LANDEN, *John*, F. R. S. an eminent mathematician, was born at Peakirk, near Peterborough in Northamptonshire, in January 1719. He became very early a proficient in the mathematics, for we find him a very respectable contributor to the Ladies Diary in 1744; and he was soon among the foremost of those who then contributed to the support of that small but valuable publication, in which almost every English mathematician, who has arrived at any degree of eminence for the last half century, has contended for fame at one time of his life or other. Mr Landen continued his contributions to it at times, and under one signature or other, till within a few years of his death.

Landen.

It has been frequently observed, that the histories of literary men consist chiefly of a history of their writings, and the observation was never more fully verified than it will be in this article concerning Mr Landen.

In the 48th volume of the Philosophical Transactions, for the year 1754, Mr Landen gave "An investigation of some theorems which suggest several very remarkable properties of the circle, and are at the same time of considerable use in resolving fractions, the denominators of which are certain multinomicils, into more simple ones, and by that means facilitate the computation of fluents." This ingenious paper was handed to the Society by that eminent mathematician the late Thomas Simpson of Woolwich; a circumstance which will convey to those who are not themselves judges of it some idea of its merit. In the year 1755, he published a volume of about 160 pages, entitled "Mathematical Lucubrations." The title to this publication was made choice of as a means of informing the world that the study of the mathematics was at that time rather the pursuit of his leisure hours than his principal employment; and indeed it continued to be so the greatest part of his life, for about the year 1762 he was appointed agent to the right honourable the earl Fitzwilliam, and resigned that employment only two years before his death. Had it been otherwise, it seems highly probable he would have extended his researches in the mathematics, to which he was most enthusiastically devoted, much farther than any other person has done. His lucubrations contain a variety of tracts relative to the rectification of curve lines, the summation of series, the finding of fluents, and many other points in the higher parts of the mathematics. About the latter end of the year 1757, or the beginning of 1758, he published proposals for printing by subscription "The Residual Analysis, a new branch of the Algebraic art:" and in 1758 he published a small tract in quarto, entitled "A Discourse on the Residual Analysis," in which he resolved a variety of problems, to which the method of fluxions had been usually applied, by a mode of reasoning entirely new; compared these solutions with solutions of the same problems, investigated by the fluxionary method; and showed, that the solutions by his new method were, in general, more natural and elegant than the fluxionary ones.

In the 51st volume of the Philosophical Transactions for the year 1760, he gave "A new method of computing the sums of a great number of infinite series." This paper was also presented to the society by his ingenious friend, the late Mr Thomas Simpson. In 1774, he published the first book of "The Residual Analysis," in a 4to volume of 218 pages, with several copperplates. In this treatise, besides explaining the principles which his new analysis was founded on, he applied it to drawing tangents and finding the properties of curve lines; to describing their involutes and evolutes, finding the radius of curvature, their greatest and least ordinates, and points of contrary fluxure; to the determination of their cusps, and the drawing

Landen. drawing of assymptotes: and he proposed in a second book to extend the application of this new analysis to a great variety of mechanical and physical subjects. The papers which were to have formed this book lay long by him; but he hever found leisure to put them in order for the press.

On the 16th of January 1766, Mr Landen was elected a fellow of the Royal Society, and admitted on the 24th of April following. In the 58th volume of the Philosophical Transactions, for the year 1768, he gave a "Specimen of a new method of comparing curvilineal areas; by means of which many areas are compared, that did not appear to be comparable by any other method;" a circumstance of no small importance in that part of natural philosophy which relates to the doctrine of motion. In the 60th volume of the same work for the year 1770, he gave "Some new theorems for computing the whole areas of curve lines, where the ordinates are expressed by fractions of a certain form," in a more consise and elegant manner than had been done by Cotes, De Moivre, and others who had considered the subject before him. In the 61st volume for 1771, he has investigated several new and useful theorems for computing certain fluents, which are assignable by arcs of the conic sections. This subject had been considered before both by Mr Maclaurin and M. d'Alembert; but some of the theorems which were given by these celebrated mathematicians, being in part expressed by the difference between an arc of a hyperbola and its tangent, and that difference being not directly attainable when the arc and its tangent both become infinite, as they will do when the whole fluent is wanted, although such fluent be finite; these theorems therefore fail in those cases, and the computation becomes impracticable without farther help. This defect Mr Landen has removed by assigning the *limit* of the difference between the hyperbolic arc and its tangent, while the point of contact is supposed to be removed to an infinite distance from the vertex of the curve. And he concludes the paper with a curious and remarkable property relating to pendulous bodies, which is deducible from those theorems. In the same year he published, "Animadversions on Dr Stewart's computation of the sun's distance from the earth."

In the 65th volume of the Philosophical Transactions, for 1775, he gave the investigation of a general theorem, which he had promised in 1771, for finding the length of any arc of a conic hyperbola by means of two elliptic arcs; and observes, that by the theorems there investigated, both the elastic curve and the curve of equable recess from a given point, may be constructed in those cases where Mr Maclaurin's elegant method fails. In the 67th volume, for 1777, he gave "A new theory of the motion of bodies revolving about an axis in free space, when that motion is disturbed by some extraneous force, either percussive or accelerative." At this time he did not know that the subject had been handled by any person before him; and he considered only the motion of a sphere's spheroid and cylinder. The publication of this paper, however, was the cause of his being told, that the doctrine of rotatory motion had been considered by M. d'Alembert; and purchasing that author's *Opuscules Mathematiques*, he there learned that M. d'Alembert was not the only one who had considered the matter before him; for M. d'Alembert there speaks of some mathematician, though he does not mention his name, who, after reading what had been written on the subject, doubted whether there be any solid whatever, besides the sphere, in which any line, passing through its centre of gravity, will be a permanent axis of rotation. In consequence of this, Mr Landen took up the subject again; and though he did not then give a solution to the general problem, viz. "To determine the motions of a body of any form whatever, revolving without restraint about any axis passing through its centre of gravity," he fully removed every doubt of the kind which had been started by the person alluded to by M. d'Alembert, and pointed out several bodies, which, under certain dimensions, have that remarkable property. This paper is given, among many others equally curious, in a volume of Memoirs which he published in the year 1780. But what renders that volume yet more valuable, is a very extensive appendix, containing "Theorems for the calculation of fluents." The tables which contain these theorems are more complete and extensive than any which are to be found in any other author, and are chiefly of his own investigating; being such as had occurred to him in the course of a long and curious application to mathematical studies in almost every branch of those sciences. In 1781, 1782, and 1783, he published three little tracts on the summation of converging series, in which he explained and showed the extent of some theorems which had been given for that purpose by M. de Moivre, Mr Sterling, and his old friend Thomas Simpson, in answer to some things which he thought had been written to the disparagement of those excellent mathematicians. It was the opinion of some, that Mr Landen did not show less mathematical skill in explaining and illustrating these theorems, than he has done in his writings on original subjects; and that the authors of them were as little aware of the extent of their own theorems as the rest of the world were before Mr Landen's ingenuity made it obvious to all.

About the beginning of the year 1782, Mr Landen had made such improvements in his theory of rotatory motion, as enabled him, he thought, to give a solution of the general problem specified above; but finding the result of it to differ very materially from the result of the solution which had been given of it by M. d'Alembert, and not being able to see clearly where that gentleman had erred, he did not venture to make his own solution public. In the course of that year, having procured the Memoirs of the Berlin Academy for 1757, which contain M. Euler's solution of the problem, he found that this gentleman's solution gave the same result as had been deduced by M. d'Alembert; but the perspicuity of M. Euler's manner of writing enabled him to discover where he had erred, which the obscurity of the other did not do. The agreement, however, of two writers of such established reputation as M. Euler and M. d'Alembert made him long dubious of the truth of his own solution, and induced him to revise the process again and again with the utmost circumspection; and being every time more convinced that his own solution was right and theirs wrong, he at length gave it to the public in the 75th volume of the Philosophical Transactions for 1785.

The

Landen ‖ Landes.

The extreme difficulty of the subject, joined to the concise manner in which Mr Landen had been obliged to give his solution in order to confine it within proper limits for the Transactions, rendered it too difficult, or at least too laborious, a piece of business for most mathematicians to read it; and this circumstance, joined to the established reputation of Euler, induced many to think that his solution was right and Mr Landen's wrong; and there did not want attempts to prove it. But notwithstanding these attempts were manifestly wrong, and that every one who perused them saw it, they convinced Mr Landen that there was a necessity for giving his solution at greater length, in order to render it more generally understood. About this time also he met by chance with the late P. Frisi's *Cosmographiæ Physicæ et Mathematicæ;* in the second part of which there is a solution of this problem, agreeing in the result with those of M. Euler and D'Alembert, which is not surprising, as P. Frisi employs the same principle that they did. Here Mr Landen learned that M. Euler had revised the solution which he had given formerly in the Berlin Memoirs, and given it another form and a greater length in a volume published at Gryphiswell in 1765, entitled, *Theoria Motus corporum solidorum seu rigidorum.* Having therefore procured this book, Mr Landen found the same principles employed in it, and of course the same conclusion resulting from them that he had found in M. Euler's former solution of the problems: but as the reasoning was given at greater length, he was enabled to see more distinctly how M. Euler had been led into the mistake, and to set that mistake in a stronger point of view. As he had been convinced of the necessity of explaining his ideas on the subject more fully, so he now found it necessary to lose no time in setting about it. He had for several years been severely afflicted with the stone in the bladder, and toward the latter part of his life to such a degree as to be confined to his bed for more than a month at a time: yet even this dreadful disorder did not abate his ardour for mathematical studies; for the second volume of his Memoirs was written and revised during the intervals of his disorder. This volume, besides a solution of the general problem concerning rotatory motion, contains the resolution of the problem concerning the motion of a top; an investigation of the motion of the equinoxes, in which Mr Landen has first of any one pointed out the cause of Sir Isaac Newton's mistake in his solution of this celebrated problem; and some other papers of considerable importance. He just lived to see this work finished, and received a copy of it the day before his death, which happened on the 15th of January 1790, at Milton, near Peterborough, in the 71st year of his age.

LANDERNEAU, a town of France, in Lower Bretagne, now the department of Finisterre, seated on the river Elhorn, 20 miles east of Brest. In an inn here is a well which ebbs and flows like the sea, but at contrary times. E. Long. 4. 13. N. Lat. 48. 25.

LANDES, a department in the south-west of France. It contains 3700 square miles, with 240,000 inhabitants. It is one of the most barren districts in the kingdom, three-fourths of it consisting of heaths. The produce consists of corn, wine, olives, and wood. There are mines of iron; and salt is made on the coast. Mont de Marsan is the chief town.

Landes ‖ Landshut.

LANDGRAVE, (formed of the German *land*, "earth," and *graff*, or *grave*, "judge" or "count"); a name formerly given to those who executed justice in behalf of the emperors, with regard to the internal policy of the country. The title does not seem to have been used before the 11th century. These judges were first appointed within a certain district of Germany: in process of time the title became hereditary, and these judges assumed the sovereignty of the several districts or counties over which they presided. Landgrave is now applied by way of eminence to those sovereign princes of the empire who possess by inheritance certain estates called *landgravates*, and of which they receive the investiture of the emperor. There are four princes who have this title, viz. those of Thuringia, Hessia, Alsace, and Leuchtemberg. There are also other landgraves, who are not princes but counts of the empire. See COUNT.

LANDGRAVIATE, or LANDGRAVATE, the office, authority, jurisdiction, or territory of a landgrave.

LANDGUARD FORT seems to belong to Suffolk, but is in the limits of Essex, and has a fine prospect of the coasts of both counties. It was erected, and is maintained, for the defence of the port of Harwich over against it; for it commands the entry of it from the sea up the Maningtree water, and will reach any ship that goes in or out. It is placed on a point of land so surrounded with the sea at high water, that it looks like a little island at least one mile from the shore. The making its foundation solid enough for so good a fortification cost many years labour and a prodigious expence. It was built in the reign of King James I. Here is a small garrison, with a governor, and a platform of guns.

LANDISFARN, or LINDESFARN. See *HOLY-Island.*

LANDRECY, a town of the French Netherlands, in Hainault, ceded to France by the treaty of the Pyrenees, and is now very well fortified. It was besieged by Prince Eugene in 1712, but to no purpose. It was taken by the allies in April 1794, but retaken in July following. It is seated in a plain on the river Sambre, in E. Long. 3. 47. N. Lat. 50. 7.

LANDSCAPE, in painting, the view or prospect of a country extended as far as the eye will reach. See PAINTING and DRAWING.

LANDSCROON, a sea port town of Sweden, in South Gothland, and territory of Schonen, seated on the Baltic sea, within the Sound, 22 miles north of Copenhagen. E. Long. 14. 20. N. Lat. 55. 42.

LANSDOWNE, a town of Somersetshire, near Bath, where there is a fair in October for cattle and cheese.

LANDSHUT, a strong town of Germany in Lower Bavaria, with a strong castle on an adjacent hill. It is seated on the river Iser. E. Long. 12. 15. N. Lat. 48. 29. There is another small town of the same name in Silesia, and in the duchy of Schweidnitz, seated on the river Zeider, which falls into the Bauber: and there is also another in Moravia, seated on the river Morave, on the confines of Hungary and Austria.

Landskip, Lanerkshire.

LANDSKIP. See LANDSCAPE.

LANERKSHIRE, or LANARKSHIRE, a county of Scotland, called also *Clydesdale*, from the river Clyde by which it is watered. It is bounded on the north by the county of Dumbarton; on the east by Stirling, Linlithgow, Edinburgh, and Peebles, shires; on the south by Dumfries; and on the west by Ayr and Renfrew shires. Its extent from north to south is about 40 miles, from east to west 36.—The river Clyde, descending from the southern part of this county, divides it into two almost equal parts; and after a course of about 50 miles, meets the tide a little below Glasgow; (see GLASGOW). Proceeding up the river from Glasgow, the country is rich and well cultivated. Bothwell castle, now in ruins, stands on an eminence which overlooks the Clyde. Some of its walls are still remaining, which measure 15 feet in thickness and 60 feet in height. Between this castle and the priory of Blantyre on the opposite side of the Clyde, there is said to have been in ancient times a subterraneous passage under the river. A little above stands Bothwell bridge, noted for the defeat of the Covenanters by the duke of Monmouth in 1679.—East from Bothwell castle, in an elevated situation, stands the Kirk of Shotts, amid a wild and barren country. This dreary waste is covered with heath; and though a high situation, is flat, and very marshy in many places. It is chiefly employed as sheep walks; and notwithstanding the vicinity of coal and lime, seems scarce capable of cultivation. This want is, however, compensated by the abundance of iron stone and coal, which are here brought together by the hand of nature. Nor is this advantage confined to the barren tract in the north-east corner of the shire. The whole county abounds with these valuable minerals; and two iron works are erected on the banks of the Clyde, one a little above Glasgow, and another at Cleland near Hamilton. But the most considerable work of this kind in the county is that of Cleugh, a few miles south-east from the Kirk of Shotts. A village is here built for the accommodation of the workmen. It is called *Wilsontown* from the name of the proprietors. There are beside these, two other iron works in this county, one on the banks of the Cadder near Airdrie, and the other at Shotts.—The small borough of Lanerk is situated on the brow of a hill, on the north-east side of the Clyde, commanding a fine prospect over the river. In this neighbourhood are some of the greatest cotton manufactories in Scotland. The Clyde near this place runs for several miles between high rocks covered with woods; and in its course exhibits many astonishing cataracts: (see the article CLYDE).—From Lanerk, passing the village of Carstairs, a few miles to the east we meet the small town of Carnwath. In this neighbourhood, and along the Clyde to the south-east, there is much cultivation and rich pasture.—To the south of Carnwath is the town of Biggar; where is seen the ruin of a collegiate church founded in 1545.—The lands about the villages of Culter and Lamington are fertile; but further up the Clyde we meet with nothing but sheep walks and pasture grounds in tracing it to its source.

In the southern part of the shire, generally called Clydesdale, the country is not less wild. Among the mountains here, or rather in a hollow near their summit, we meet with the village of Leadhills, by some said to be the highest human habitation in the island of Great Britain. Here, however, reside many hundreds of miners with their families. These miners, though in a great measure excluded from society by their situation, yet not only find means to procure a comfortable subsistence, but also pay more attention to the cultivation of the mind than many of their countrymen situated seemingly in more favourable circumstances for the attainment of knowledge. As an evidence of this, they are very intelligent, and have provided a circulating library for the instruction and amusement of the little community belonging to the village.—Amid these mountains particles of gold have sometimes been found washed down by the rains and streams of water; but this desert tract is chiefly valuable for producing metals of inferior worth. "Nothing (says Mr Pennant) can equal the gloomy appearance of the country round. Neither tree, nor shrub, nor verdure, nor picturesque rock, appear to amuse the eye. The spectator must plunge into the bowels of these mountains for entertainment." The veins of lead lie mostly north and south; and their thickness varies from a few inches to 20 inches and two feet. At one place the Susannah vein (the richest ever discovered at Leadhills) swelled out to the extraordinary thickness of 14 feet. Some have been found filled with ore within two fathoms of the surface; others sink to the depth of 90 fathoms. The earl of Hopeton, the proprietor, has in his possession a solid mass of lead ore from these mines weighing five tons. His lordship has also, it is said, a piece of native gold that weighs two ounces, which was found here. The lead smelted at this place is all sent to Leith, where it has the privilege of being exported free of duty. The scanty pasture afforded by this barren region feeds some sheep and cattle; but those in the neighbourhood of the mines sometimes perish by drinking of the water in which the lead ore has been washed: for the lead ore communicates a deleterious quality to the water, though that liquid acquires no hurtful taint from remaining in leaden pipes or cisterns. North from this mountainous region lies Crawford muir.

Lanerkshire.

About nine miles north of Leadhills, on the east side of the small river Douglas, which falls into the Clyde a few miles below, stands Douglas castle, for many ages the residence of the second family in Scotland. A modern building has been erected on the same site, in imitation of the ancient castle. Near it stands the town of Douglas. A few miles to the north-east is Tinto, a remarkable conic mountain, round the base of which the Clyde makes a noble sweep. Westward, beyond Douglas, the river Nethan descends into the Clyde through the populous parish of Lesmahago.—Hamilton house, the seat of the duke of Hamilton, stands in a plain between the rivers Clyde and Avon. It is a magnificent structure, surrounded by many venerable oaks. In the vicinity is the town of Hamilton, which contains many handsome houses: (see HAMILTON). Here are seen the ruins of a collegiate church, founded in 1451. At a little distance from Hamilton house is an elegant appendage to it, called *Chatelherault*, the name of the ancient possession held by the family in France. This building is seated on the river Avon, and is surrounded by woods and

Lanarkshire, Lanesborough.

deep dells, and every rural beauty that can produce a pleasing effect on the imagination.—On the west of Hamilton is the little town of Kilbride; and to the south that of Strathaven, surrounded by the fertile tract from which it derived its name. In our way from Hamilton to Glasgow we meet with the ancient borough of Rutherglen, inhabited chiefly by weavers and other manufacturers: and the village of Govan stands on the same side of the river on the road from Glasgow to Renfrew.

The population of this county, as it is stated in the Statistical History, according to its parishes, is the following:

	Parishes.	Population in 1755.	Population in 1790—1798.
1	Avendale	3551	3343
	Biggar	1098	937
	Blantyre	496	1040
	Bothwell	1561	2707
5	Cadder	2396	1767
	Cambuslang	934	1288
	Cambusnethan	1419	1684
	Carluke	1459	1730
	Carmichael	899	781
10	Carmunnock	471	570
	Carnwath	2390	3000
	Carstairs	845	924
	Covington	521	484
	Crawford	2009	1490
15	Crawford John	765	590
	Culter	422	326
	Dalserf	765	1100
	Dalziel	351	478
	Dolphington	302	200
20	Douglas	2009	1715
	Dunsyre	359	360
	Glasford	559	788
	Glasgow } Do. Barony }	27,451	58,401
25	Gorbals } Govan }	4389	9066
	Hamilton	3815	5017
	Kilbride	2029	2359
	Lamington	599	417
30	Lanark	2294	4751
	Lesmahago	3996	2810
	Libberton	738	750
	Monkland, New	2713	3560
	Monkland, Old	1813	4000
35	Pettinain	330	386
	Robertoun	1102	740
	Rutherglen	988	1860
	Shotts	2322	2041
	Stonehouse	823	1060
40	Symington	264	307
41	Walston	478	427
		81,726	125,254
	Population in 1811	191,752	

See LANARKSHIRE, SUPPLEMENT.

LANESBOROUGH, a borough town of Ireland, in the county of Longford and province of Leinster, situated on the river Shannon, 62 miles from Dublin. This town gave title of *viscount* to the family of Lane, and now gives title of *earl* to that of Butler. There is a bridge over the Shannon at Lanesborough into the county of Roscommon. N. Lat. 53. 40. W. Long. 8. 6.

Lanesborough || Langeland.

LANFRANC, an Italian, born at Pavia, became archbishop of Canterbury in 1070. He disputed against Berengarius in the council held at Rome in 1059, and wrote against him concerning the real presence in the eucharist. He had other disputes, &c. and died in 1089.

LANFRANC, *John*, an eminent Italian history painter, born at Parma in 1581. He was first the disciple of Augustin Caracci; and, after his death, of Hannibal, whose taste in design and colouring he so happily attained, that he was instructed to execute some of his designs in the Farnesian palace at Rome. These he finished in so masterly a manner, that the difference is imperceptible to this day between his work and that of his master. His genius directed him to grand compositions, which he had a peculiar facility in designing and in painting either in fresco or in oil; he did indeed aspire to the grace of Correggio, but could never arrive at his excellence; his greatest power being manifested in composition and fore shortening. He was deficient in correctness and expression; and his colouring, though sometimes admirable, was frequently too dark. By order of Pope Urban VIII. he painted in St Peter's church at Rome the representation of that saint walking on the water, which afforded the pope so much satisfaction that he knighted him. He died in 1647.

LANGBAINE, GERARD, D. D. a learned English writer, was born in 1608. He was educated at Queen's college, Oxford; and became keeper of the archives of that university, and provost of his college. He was highly esteemed by Archbishop Usher, Selden, and other learned men; he died in 1657. He published, 1. An edition of Longinus, in Greek and Latin, with notes; and other works.

LANGBAINE, *Gerard*, an eminent writer, the son of the former, was born in 1656. He was put apprentice to Mr Symonds, bookseller in St Paul's churchyard: but was soon after called from thence by his mother upon the death of his eldest brother, and by her entered a gentleman commoner of University college, Oxford, in 1672. Here he run out a good part of his estate; but afterwards corrected his manner of living, and for some years lived in retirement near Oxford. During this time he improved his taste for dramatic poetry; and at first wrote some small pieces without his name, but afterwards published several works which he publicly owned. In 1690 he was elected inferior beadle of arts in the university of Oxford; and, in January following, was chosen superior beadle of law, but died soon after in 1692. He wrote, 1. The Hunter, a discourse on horsemanship. 2. A new catalogue of English plays with their best editions, and divers remarks on the originals of most plays, and on the plagiarics of several authors 3. An account of the English dramatic poets.

LANGELAND, ROBERT, an old English poet of the 14th century, and one of the first disciples of Wickliffe the reformer. He is said to have been born in Shropshire. He wrote The visions of Pierce Plowman; a piece which abounds with imagination and humour, though dressed to great disadvantage in very uncouth versification.

Langeland ‖ Langhorne. versification and obsolete language. It is written without rhyme, an ornament which the poet has endeavoured to supply by making every verse begin with the same letter. Dr Hickes observes, that this kind of alliterative versification was adopted by Langeland from the practice of the Saxon poets, and that these visions abound with Saxonisms: he styles him *celeberrimus ille satirographus, morum vindex acerrimus*, &c. Chaucer and Spenser have attempted imitations of his visions, and the learned Selden mentions him with honour.

LANGELAND, an island of Denmark in the Baltic sea, in the strait called *the great belt*. E. Long. 11. 10. N. Lat. 55. 0.

LANGETZ, a town of France, in Touraine, noted for its excellent melons. It is seated on the river Loire, in E. Long. 0. 23. N. Lat. 42. 20.

LANGHORNE, JOHN, D. D. was born at Kirkby-Stephen in Westmoreland. His father was the reverend John Langhorne of Winston, who died when his son was young. After entering into holy orders, he became tutor to the sons of Mr Cracroft, a Lincolnshire gentleman, whose daughter he married. The lady in a short time died: and the loss of her was very pathetically lamented by her husband in a monody; and by another gentleman, Mr Cartwright, in a poem entitled "Constantia." Dr Langhorne held the living of Blagden in Somersetshire at the time of his death, which happened April 1. 1779. He was the author of several literary productions; amongst others, of Poems in two vols, 1766; Sermons in 2 vols. 1773; Effusions of Fancy, 2 vols; Theodosius and Constantia, 2 vols; Solyman and Almena; Frederic and Pharamond, or the Consolations of Human Life, 1769; a Dissertation on the Eloquence of the Pulpit, and another on Religious Retirement: and he was editor of the works of St Evremond, of the Poems of Collins, and some other articles. Langhorne ‖ Langton.

LANGOBARDI, a people of Germany situated between the Elbe and the Oder, (Tacitus).

LANGPORT, a town in Somersetshire, 132 miles from London, is a well frequented town on the Parrot, between Bridgewater and Crewkern. Here are lighters which are constantly employed in carrying coals, &c. from Bridgewater.

LANGREL SHOT, at sea, that consisting of two bars of iron joined by a chain or shackle, and having half a ball of iron fixed on each end; by means of which apparatus it does great execution among the enemy's rigging.

LANGRES, an ancient and considerable town of France, in Champagne, with a bishop's see. The cutlery wares made here are in high esteem. It is seated on a mountain near the river Marne, in E. Long. 4. 24. N. Lat. 47. 52.

LANGTON, STEPHEN, was born in England, but educated at Paris, and was greatly esteemed for his learning by the king and nobility of France. He was chancellor of Paris, a cardinal of Rome, and in the reign of King John was made archbishop of Canterbury by Pope Innocent III. in opposition both to the monks of Canterbury and to the king. Langton was one of the most illustrious men of his age for learning; and continued archbishop 22 years, dying in 1228. A catalogue of his books is given by Bale and Tanner.

LANGUAGE.

Language. 1 Definition. LANGUAGE, in the proper sense of the word, signifies the expression of our ideas and their various relations by certain articulate sounds, which are used as the signs of those ideas and relations. By articulate sounds are meant those modulations of simple voice, or of sound emitted from the thorax, which are formed by means of the mouth and its several organs,—the teeth, the tongue, the lips, and the palate. In a more general sense of the word, *language* is sometimes used to denote all sounds by which animals of any kind express their particular feelings and impulses in a manner that is intelligible to their own species.

Nature has endowed every animal with powers sufficient to make known all those of its sensations and desires, with which it is necessary, for the preservation of the individual or the continuance of the kind, that others of the same species should be acquainted. For this purpose, the organs of all vocal animals are so formed, as, upon any particular impulse, to utter sounds, of which those of the same species instinctively know the meaning. The summons of the hen is instantly obeyed by the whole brood of chickens; and in many others of the irrational tribes a similar mode of communication may be observed between the parents and the offspring, and between one animal and its customary associate. But it is not among animals of the same species only that these instinctive sounds are mutually understood. It is as necessary for animals to know the voices of their enemies as the voice of their friends; and the roaring of the lion is a sound, of which, previous to all experience, every beast of the forest is naturally afraid. Between these animal voices and the language of men there is however very little analogy. Human language is capable of expressing ideas and notions, which there is every reason to believe that the brutal mind cannot conceive. "Speech (says Aristotle) is made to indicate what is expedient and what inexpedient, and in consequence of this what is just and unjust. It is therefore given to men; because it is peculiar to them, that of good and evil, just and unjust, they only (with respect to other animals) possess a sense or feeling." The voices of brutes seem intended by nature to express, not distinct ideas or moral modes, but only such feelings as it is for the good of the species that they should have the power of making known; and in this, as in all other respects, these voices are analogous; not to our speaking, but to our weeping, laughing, singing, groaning, screaming, and other natural and audible expressions of appetite and passion.—Another difference between the language of men and the voices of brute animals consists in articulation, by which the former may be resolved into distinct elementary sounds or syllables; whereas the latter, being for the most part unarticulated, are not capable of such a resolution. Hence Homer and Hesiod characterise man by the epi-

Language. 2 Language in what respects different from the instinctive cries of animals.

Language. thet μεροψ, or "voice-dividing," as denoting a power peculiar to the human species; for though there are a few birds* which utter sounds that may be divided into syllables, yet each of these birds utters but one such sound, which seems to be employed rather as notes of natural music than for the purpose of giving information to others; for when the bird is agitated, it utters cries which are very different, and have no articulation.

* The parrot, cuckoo, and East India bird called *cockatoo*, &c.

3 Not from nature or instinct, but ——A third difference between the language of men and the significant cries of brute animals, is, that the former is from art and the latter from nature. Every human language is learned by imitation, and is intelligible only to those who either inhabit the country where it is vernacular, or have been taught it by a master or by books: but the voices in question are not learned by imitation; and being wholly instinctive, they are intelligible to all the animals of that species by which they are uttered, though brought together from the most distant countries on earth. That a dog, which had never heard another bark, would notwithstanding bark himself, and that the barkings or yelps of a Lapland dog would be instinctively understood by the dogs of Spain, Calabria, or any other country, are facts which admit not of doubt: but there is no reason to imagine that a man who had never heard any language spoken would himself speak; and it is well known that the language spoken in one country, is unintelligible to the natives of another country where a different language is spoken. Herodotus indeed records a fact which, could it be depended upon, would tend to overturn this reasoning, as it infers a natural relation between ideas and certain articulate sounds. He tells us, that Psammetichus king of Egypt, in order to discover which was the oldest language, caused two children, newly born of poor parents, to be brought up by a shepherd among his cattle, with a strict injunction that they should never hear a human voice; and that at the end of two years the children pronounced at the same time the word βεκκος, which in the Phrygian language signified *bread*. Either this is one of the many fables which that credulous historian collected among the Egyptians, or the conduct and reasoning of Psammetichus were very absurd; for it is added, that from this circumstance he inferred that the Phrygians were the most ancient people, and that they spoke the primitive language. The only rational purpose for which such an experiment could be instituted, would be to discover, not which is the eldest or the latest language, but whether there be such a thing as a language of nature or instinct; but in such a language it is obvious that there could be no word to denote *bread*, because in what is called the state of nature bread is unknown. The experiment of Psammetichus was probably never made: but in the woods of different countries solitary savages have at different times been caught, who, though they apparently possessed all the sagacity which is natural to man, and though their organs both of hearing and of speech were perfect, never used articulate sounds as signs of sensations or ideas. They uttered indeed the inarticulate cries which are instinctively expressive of pleasure and pain, of joy and sorrow, more distinctly and forcibly than men civilized; but with respect to the very rudiments of language, they were what Horace represents all mankind to have been originally,—*mutum et turpe pecus*. Indeed it seems to be obvious, that were there any instinctive language, the first words uttered by all children would be the same; and that every child, whether born in the desert or in society, would understand the language of every other child, however educated or however neglected. Nay more, we may venture to affirm, that such a language, though its general use might, in society, be superseded by the prevailing dialect of art, could never be wholly lost; and that no man of one country would find it difficult, far less impossible, to communicate the knowledge of his natural and most pressing wants to the men of any other country, whether barbarous or civilized. The exercise of cultivated reason, and the arts of civil life, have indeed eradicated many of our original instincts, but they have not eradicated them all: (see INSTINCT). There are external indications of the internal feelings and desires, which appear in the most polished society, and which are confessedly instinctive. The passions, emotions, sensations, and appetites, are naturally expressed in the countenance by characters which the savage and the courtier can read with equal readiness. The look serene, the smoothed brow, the dimpled smile, and the glistening eye, denote equanimity and good will in terms which no man mistakes. The contracted brow, the glaring eye, the sullen gloom, and the threatening air, denote rage, indignation, and defiance, as plainly and forcibly as revilings or imprecations. To teach men to disguise these instinctive indications of their temper, and

> "To carry smiles and sunshine in their face,
> "When discontent sits heavy at their heart,"

constitutes a great part of modern and refined education. Yet in spite of every effort of the utmost skill, and of every motive resulting from interest, the most consummate hypocrite, or the most hackneyed politician, is not always able to prevent his real disposition from becoming apparent in his countenance. He may indeed, by long practice, have acquired a very great command both over his temper and over the instinctive signs of it; but at times nature will predominate over art, and a sudden and violent passion will flash in his face, so as to be visible to the eye of every beholder. If these observations be just, and we flatter ourselves with the belief that no man will call them in question, it seems to follow, that, if mankind were prompted by instinct to use articulate sounds as indications of their passions, affections, sensations, and ideas, the language of nature could never be wholly forgotten, and that it would sometimes predominate over the language of art. Groans, sighs, and some inarticulate lively sounds, are naturally expressive of pain and pleasure, and equally intelligible to all mankind. The occasional use of these no art can wholly banish; and if there were articulate sounds naturally expressive of the same feelings, it is not conceivable that art or education could banish the use of them, merely because by the organs of the mouth they are broken into parts and resolvable into syllables.

It being thus evident that there is no instinctive articulated language, it has become an inquiry of some importance, how mankind were first induced to fabricate articulate sounds, and to employ them for the purpose of communicating their thoughts. Children learn to speak by insensible imitation; and when advanced

Language. vanced some years in life, they study foreign languages under proper instructors: but the first men had no speakers to imitate, and no formed language to study; by what means then did they learn to speak? On this question only two opinions can possibly be formed. Either language must have been originally revealed from heaven, or it must be the fruit of human industry. The greater part of Jews and Christians, and even some of the wisest Pagans, have embraced the former opinion; which seems to be supported by the authority of Moses, who represents the Supreme Being as teaching our first parents the *names* of animals. The latter opinion is held by Diodorus Siculus, Lucretius, Horace, and many other Greek and Roman writers, who consider language as one of the arts invented by man. The first men, say they, lived for some time in woods and caves after the manner of beasts, uttering only confused and indistinct noises; till associating for mutual assistance, they came by degrees to use articulate sounds mutually agreed upon for the arbitrary signs or marks of those ideas in the mind of the speaker which he wanted to communicate to the hearer. This opinion sprung from the atomic cosmogony which was framed by Moschus the Phenician, and afterwards improved by Democritus and Epicurus; and though it is part of a system in which the first men are represented as having grown out of the earth like trees and other vegetables, it has been adopted by several modern writers (A) of high rank in the republic of letters, and is certainly in itself worthy of examination.

4 either revealed from heaven, or an art invented by men.

5 Arguments for its being of human invention.

The most learned, and on every account the most respectable author who now supports this opinion, candidly acknowledges, that if language was invented, it was of very difficult invention, and far beyond the reach of the grossest savages. Accordingly he holds, that though men were originally solitary animals, and had no natural propensity to the social life; yet before language could be invented they must have been associated for ages, and have carried on of concert some common work. Nay, he is decidedly of opinion, that before the invention of an art so difficult as language, men must not only have herded together, but have also formed some kind of civil polity, have existed in that political state a very long time, and have acquired such powers of abstraction as to be able to form general ideas. (See LOGIC and METAPHYSICS.) But it is obvious, that men could not have instituted civil polity, or have carried on of concert any common work, without communicating their designs to each other: and there are four ways by which the author thinks that this could have been done before the invention of speech; viz. 1st, *Inarticulate cries*, expressive of sentiments and passions: 2d, *Gestures* and *the expression of countenance*: 3d, *Imitative sounds* expressive of audible things; and 4th, *Painting*, by which visible objects may be represented. Of these four ways of communication it is plain that only two have any connection with language, viz. inarticulate cries and imitative sounds; and of these the author abandons the latter as having contributed nothing to the invention of articulation, though he thinks it may have helped to advance its progress. "I Language. am disposed (says he) to believe, that the framing of words with an analogy to the sound of the things expressed by them belongs rather to languages of art than to the first languages spoken by rude and barbarous nations." It is therefore inarticulate cries only that must have given rise to the formation of language. Such cries are used by all animals who have any use of voice to express their wants; and the fact is, that all barbarous nations have cries expressing different things, such as joy, grief, terror, surprise, and the like. These, together with gestures and expression of the countenance, were undoubtedly the methods of communication first used by men: and we have but to suppose (says our author) a great number of our species carrying on some common business, and conversing together by signs and cries; and we have men just in a state proper for the invention of language. For if we suppose their numbers to increase, their wants would increase also; and then these two methods of communication would become too confined for that larger sphere of life which their wants would make necessary. The only thing then that remained to be done was to give a greater variety to the instinctive cries; and as the natural progress is from what is easy to what is more difficult, the first variation would be merely by tones from low to high, and from grave to acute. But this variety could not answer all the purposes of speech in society; and being advanced so far, it was natural that an animal so sagacious as man should go on farther, and come at last to the only other variation remaining, namely, articulation. The first articulation would be very simple, the voice being broken and distinguished only by a few vowels and consonants. And as all natural cries are from the throat and larynx, with little or no operation of the organs of the mouth, it is natural to suppose, that the first languages were for the greater part spoken from the throat; that what consonants were used to vary the cries, were mostly guttural; and that the organs of the mouth would at first be very little employed. From this account of the origin of language it appears, that the first sounds articulated were the natural cries by which men signified their wants and desires to one another, such as calling one another for certain purposes, and other such things as were most necessary for carrying on any joint work: then in process of time other cries would be articulated, to signify, that such and such actions had been performed or were performing, or that such and such events had happened relative to the common business. The names would be invented of such objects as they were conversant with; but as we cannot suppose savages to be deep in abstraction or skilful in the art of arranging things according to their *genera* and *species*, all things however similar, except perhaps the individuals of the lowest species, would be expressed by different words not related to each other either by derivation or composition. Thus would language grow by degrees; and as it grew, it would be more and more broken and articulated by consonants; but still the words would retain a great deal of their original nature

(A) Father Simon, Voltaire, L'Abbé Condillac, Dr Smith, and the author of the *Origin and Progress of Language*.

Language. ture of animal cries. And thus things would go on, words unrelated still multiplying, till at last the language would become too cumbersome for use; and then art would be obliged to interpose, and form a language upon a few radical words, according to the rules and method of etymology.

6 Arguments for its divine origin.

Those (B) who think that language was originally revealed from heaven, consider this account of its human invention as a series of mere suppositions hanging loosely together, and the whole suspended from no fixed principle. The opinions of Diodorus, Vitruvius, Horace, Lucretius, and Cicero, which are frequently quoted in its support, are in their estimation of no greater authority than the opinions of other men; for as language was formed and brought to a great degree of perfection long before the era of any historian with whom we are acquainted, the antiquity of the Greek and Roman writers, who are comparatively of yesterday, gives them no advantage in this inquiry over the philosophers of France and England. Aristotle has defined man to be ζωον μιμητικον: and the definition is certainly so far just, that man is much more remarkable for imitation than invention; and therefore, say the reasoners on this side of the question, had the human race been originally *mutum et turpe pecus*, they would have continued so to the end of time, unless they had been taught to speak by some superior intelligence. That the first men sprung from the earth like vegetables, no modern philosopher has ventured to assert; nor does there anywhere appear sufficient evidence that men were originally in the state of savages. The oldest book extant contains the only rational cosmogony known to the ancient nations; and that book represents the first human inhabitants of this earth, not only as reasoning and speaking animals, but also as in a state of high perfection and happiness, of which they were deprived for disobedience to their Creator. Moses, setting aside his claim to inspiration, deserves, from the consistence of his narrative, at least as much credit as Moschus, or Democritus, or Epicurus; and from his prior antiquity, if antiquity could on this subject have any weight, he would deserve more, as having lived nearer to the period of which they all write. But the question respecting the origin of language may be decided without resting in authority of any kind, merely by considering the nature of speech and the mental and corporeal powers of man. Those who maintain it to be of human invention, suppose men at first to have been solitary animals, afterwards to have herded together without government or subordination, then to have formed political societies, and by their own exertions to have advanced from the grossest ignorance to the refinements of science. But, say the reasoners whose cause we are now pleading, this is a supposition contrary to all history and all experience. There is not upon record a single instance well authenticated of a people emerging by their own efforts from barbarism to civilization. There have indeed been many nations raised from the state of savages; but it is known that they were polished, not by their own repeated exertions, but by the influence of individuals or colonies from nations more enlightened than themselves. The original savages of Greece were tamed by the Pelasgi, a foreign tribe; and were afterwards further polished by Orpheus, Cecrops, Cadmus, &c. who derived their knowledge from Egypt and the East. The ancient Romans, a ferocious and motley crew, received the blessings of law and religion from a succession of foreign kings; and the conquests of Rome at a latter period contributed to civilize the rest of Europe. In America, the only two nations which at the invasion of the Spaniards could be said to have advanced a single step from barbarism, were indebted for their superiority over the other tribes, not to the gradual and unassisted progress of the human mind, but to the wise institutions of foreign legislators. Language.

This is not the proper place for tracing the progress of man from the savage state to that of political society (see *Savage State*); but experience teaches us that in every art it is much easier to improve than to invent. The human mind, when put into the proper track, is indeed capable of making great advances in arts and sciences; but if any credit be due to the records of history, it has not, in a people sunk in ignorance and barbarity, sufficient vigour to discover that track, or to conceive a state different from the present. If the rudest inhabitants of America and other countries have continued, as there is every reason to believe they have continued, for ages in the same unvaried state of barbarism; how is it imaginable that people so much ruder than they, as to be ignorant of all language, should think of inventing an art so difficult as that of speech, or even to frame a conception of the thing? In building, fishing, hunting, navigating, &c. they might imitate the instinctive arts of other animals, but there is no other animal that expresses its sensations and affections by arbitrary articulate sounds.—It is said that before language could be invented, mankind must have existed for ages in large political societies, and have carried on in concert some common work; but if inarticulate cries, and the natural visible signs of the passions and affections, were modes of communication sufficiently accurate to keep a large society together for ages, and to direct its members in the execution of some common work, what could be their inducement to the invention of an art so useful and difficult as that of language? Let us however suppose, say the advocates for the cause which we are now supporting, that different nations of savages set about inventing an art of communicating their thoughts, which experience had taught them was not absolutely necessary; how came they all, without exception, to think of the one art of articulating the voice for this purpose? Inarticulate cries, out of which language is fabricated, have indeed an instinctive connexion with our passions and affections; but there are gestures and expressions of countenance with which our passions and affections are in the same manner connected. If the natural cries of passion could be so modified and enlarged as to be capable of communicating to the hearer every idea in the mind of the speaker, it is certain that the natural gestures could be so modified as to answer the very

(B) Warburton, Delaney, Johnson, Beattie, Blair, and Dr Stanhope Smith of New Jersey, &c.

Language. very same purpose (see PANTOMIME); and it is strange that among the several nations who invented languages, not one should have stumbled upon fabricating visible signs of their ideas, but that all should have agreed to denote them by articulated sounds. Every nation whose language is narrow and rude supplies its defects by a violent gesticulation; and therefore, as much less genius is exerted in the improvement of any art than was requisite for its first invention, it is natural to suppose, that, had men been left to devise for themselves a method of communicating their thoughts, they would not have attempted any other than that by which they now improve the language transmitted by their fathers. It is vain to urge that articulate sounds are fitter for the purpose of communicating thought than visible gesticulation; for though this may be true, it is a truth which could hardly occur to savages, who had never experienced the fitness of either; and if, to counterbalance the superior fitness of articulation, its extreme difficulty be taken into view, it must appear little less than miraculous that every savage tribe should think of it rather than the easier method of artificial gesticulation. Savages, it is well known, are remarkable for their indolence, and for always preferring ease to utility; but their modes of life give such pliancy to their bodies, that they could with very little trouble bend their limbs and members into any positions agreed upon as the signs of ideas. This is so far from being the case with respect to the organs of articulation, that it is with extreme difficulty, if at all, that a man advanced in life can be taught to articulate any sound which he has not been accustomed to hear. No foreigner who comes to England after the age of thirty ever pronounces the language tolerably well; an Englishman of that age can hardly be taught to utter the guttural sound which a Scotchman gives to the Greek χ, or even the French sound of the vowel u; and of the solitary savages who have been caught in different forests, we know not that there has been one who, after the age of manhood, learned to articulate any language so as to make himself readily understood. The present age has indeed furnished many instances of deaf persons being taught to speak intelligibly by skilful masters moulding the organs of the mouth into the positions proper for articulating the voice; but who was to perform this task among the inventors of language, when all mankind were equally ignorant of the means by which articulation is effected? In a word, daily experience informs us, that men who have not learned to articulate in their childhood, never afterwards acquire the faculty of speech but by such helps as savages cannot obtain; and therefore, if speech was invented at all, it must have been either by children who were incapable of invention, or by men who were incapable of speech. A thousand, nay a million, of children could not think of inventing a language. While the organs are pliable, there is not understanding enough to frame the conception of a language; and by the time that there is understanding, the organs are become too stiff for the task, and therefore, say the advocates for the divine origin of language, reason as well as history intimates, that mankind in all ages must have been speaking animals; the young having constantly acquired this art by imitating those who were elder; and we may warrantably conclude, that our first parents received it by immediate inspiration. Language.

To this account of the origin of language an objection readily offers itself. If the first language was communicated by inspiration, it must have been perfect, and held in reverence by those who spake it, i. e. by all mankind. But a vast variety of languages have prevailed in the world; and some of these which remain are known to be very imperfect, whilst there is reason to believe that many others are lost. If different languages were originally invented by different nations, all this would naturally follow from the mixture of these nations; but what could induce men possessed of one perfect language of divine original, to forsake it for barbarous jargons of their own invention, and in every respect inferior to that with which their forefathers or themselves had been inspired?

7 In what circumstances the most perfect and copious language must become narrow and rude.

In answer to this objection, it is said, that nothing was given by inspiration but the faculty of speech and the elements of language; for when once men had language, it is easy to conceive how they might have modified it by their natural powers, as thousands can improve what they could not invent. The first language, if given by inspiration, must in its principles have had all the perfection of which language is susceptible; but from the nature of things it could not possibly be very copious. The words of language are either proper names or the signs of ideas and relations; but it cannot be supposed that the All-wise Instructor would load the memories of men with words to denote things then unknown, or with the signs of ideas which they had not then acquired. It was sufficient that a foundation was laid of such a nature as would support the largest superstructure which they might ever after have occasion to raise upon it, and that they were taught the method of building by composition and derivation. This would long preserve the language radically the same, though it could not prevent the introduction of different dialects in the different countries over which men spread themselves. In whatever region we suppose the human race to have been originally placed, the increase of their numbers would in process of time either disperse them into different nations, or extend the one nation to a vast distance on all sides from what we may call the seat of government. In either case they would everywhere meet with new objects, which would occasion the invention of new names; and as the difference of climate and other natural causes would compel those who removed eastward or northward to adopt modes of life in many respects different from the modes of those who travelled towards the west or the south, a vast number of words would in one country be fabricated to denote complex conceptions, which must necessarily be unintelligible to the body of the people inhabiting countries where those conceptions had never been formed. Thus would various dialects be unavoidably introduced into the original language, even whilst all mankind remained in one society and under one government. But after separate and independent societies were formed, these variations would become more numerous, and the several dialects would deviate farther and farther from each other, as well as from the idiom and genius of the parent tongue, in proportion to the distance of

the

Language. the tribes by whom they were spoken. If we suppose a few people either to have been banished together from the society of their brethren, or to have wandered of their own accord to a distance, from which through trackless forests they could not return (and such emigrations have often taken place), it is easy to see how the most copious language must in their mouths have soon become narrow, and how the offspring of inspiration must have in time become so deformed as hardly to retain a feature of the ancestor whence it originally sprung. Men do not long retain a practical skill in those arts which they never exercise; and there are abundance of facts to prove, that a single man cast upon a desert island, and having to provide the necessaries of life by his own ingenuity, would soon lose the art of speaking with fluency his mother tongue. A small number of men cast away together, would indeed retain that art somewhat longer; but in a space of time not very long, it would in a great measure be lost by them or their posterity. In this state of banishment, as their time would be almost wholly occupied in hunting, fishing, and other means within their reach to support a wretched existence, they would have very little leisure, and perhaps less desire, to preserve by conversation the remembrance of that ease and those comforts of which they now found themselves for ever deprived; and they would of course soon forget all the words which in their native language had been used to denote the accommodations and elegancies of polished life. This at least seems to be certain, that they would not attempt to teach their children a part of a language which in their circumstances could be of no use to them, and of which it would be impossible to make them comprehend the meaning; for where there are no ideas, the signs of ideas cannot be made intelligible. From such colonies as this dispersed over the earth, it is probable that all those nations of savages have arisen, which have induced so many philosophers to imagine that the state of the savage was the original state of man; and if so, we see that from the language of inspiration must have unavoidably sprung a number of different dialects all extremely rude and narrow, and retaining nothing of the parent tongue, except perhaps the name of the most conspicuous objects of nature, and of those wants and enjoyments which are inseparable from humanity. The savage state has no artificial wants, and furnishes few ideas that require *terms* to express them. The habits of solitude and silence incline a savage rarely to speak; and when he speaks, Language. he uses the same terms to denote different ideas. Speech therefore, in this rude condition of men, must be extremely narrow and extremely various. Every new region, and every new climate, suggests different ideas and creates different wants, which must be expressed either by terms entirely new, or by old terms used with a new signification. Hence must originate great diversity, even in the first elements of speech, among all savage nations, the words retained of the original language being used in various senses, and pronounced, as we may believe, with various accents. When any of those savage tribes emerged from their barbarism, whether by their own efforts or by the aid of people more enlightened than themselves, it is obvious that the improvement and copiousness of their language would keep pace with their own progress in knowledge and in the arts of civil life; but in the infinite multitude of words which civilization and refinement add to language, it would be little less than miraculous were any two nations to agree upon the same sounds to represent the same ideas. Superior refinement, indeed, may induce imitation, conquests may impose a language, and extension of empires may melt down different nations and different dialects into one mass; but independent tribes naturally give rise to diversity of tongues, nor does it seem possible that they should retain more of the original language than the words expressive of those objects with which all men are at all times equally concerned.

Hence the variety of tongues which have prevailed in the world.

The variety of tongues, therefore, the copiousness of some, and the narrowness of others, furnish no good objection to the divine origin of language in general; for whether language was at first revealed from heaven, or in a course of ages invented by men, a multitude of dialects would inevitably arise as soon as the human race was separated into a number of distinct and independent nations.—We pretend not to decide for our readers in a question of this nature: we have given the best arguments on both sides which we could either devise or find in the writings of others: and if it be seen, as we doubt not it will, that our own judgment leans to the side of revelation, let it not be hastily condemned by those whose knowledge of languages extends no farther than to Greece and Rome, and France and England; for if they will carry their philological inquiries to the east, they may perhaps be able to trace the remains of one original language through a great part of the globe at this day (c).

Language,

(c) Numberless instances of this might be given, but our limits will permit us to produce only a very few.—In the *Shanscrit*, or ancient language of the *Gentoos*, OUR signifies a *day:* (See *Halhed's preface to the code of Gentoo laws*). In other eastern languages, the same word was used to denote both *light* and *fire*. Thus in the *Chaldee*, UR is *fire;* in the *Egyptian*, OR is the *sun* or *light*, (*Plut. de Osir. et Isid.*): In the *Hebrew*, AUR is *light:* in the *Greek*, αηρ is the *air*, often *light:* in *Latin*, AURA is the *air*, from the Æolic Greek; and in *Irish* it is AEAR. From the very same original we have the Greek word πυρ, and the English *fire*.—In *Hebrew*, OR signifies to *raise*, *lift up one's self*, or *be raised:* hence plainly are derived the *Greek* ορω, to *raise*, *excite*, and the *Latin* ORIOR *to arise;* whence ORIENS *the east*, and Eng. *orient*, *oriental;* also Lat. *origo*, and Eng. *origin*, *originate*, &c.—The word KHUNT in the Shanscrit dialect, signifies *a small territory*, which is retained in Κυνθος, *Kent*, *Canton*, *Cantabria*. The word KHAN, KIN, CEAN, GAN, GEN, GIN, is of the same kind, and pervades Asia and Europe from the *Ganges* to the *Garonne*. The word LIGHT English, LUGHT Flemish, LUX Roman, and λυχος Greek, has been traced to Egypt. ARETZ, AREK, ERECH, HERTHA, EARTH, and ERDE, are all one word from Palestine and Chaldea to Britain and Germany.—The Chaldeans turned the

Hebrew

Language. Language, whatever was its origin, must be subject to perpetual changes from its very nature, as well as from that variety of incidents which affect all sublunary things; and those changes must always correspond with the change of circumstances in the people by whom the language is spoken. When any particular set of ideas becomes prevalent among any society of men, words must be adopted to express them; and from these the language must assume its character.—Hence the language of a brave and martial people is bold and nervous, although perhaps rude and uncultivated; while the languages of those nations in which luxury and effeminacy prevail, are flowing and harmonious, but devoid of force and energy of expression.

9 The language of any people an index to their minds.

10 Some exceptions to the preceding rule.

But although it may be considered as a general rule, that the language of any people is a very exact index of the state of their minds, yet it admits of some particular exceptions. For as man is naturally an imitative animal, and in matters of this kind never has recourse to invention but through necessity, colonies planted by any nation, at whatever distance from the mother country, always retain the same general sounds and *idiom* of language with those from whom they are separated. In process of time, however, the colonists and the people of the mother country, by living under different climates, by being engaged in different occupations, and by adopting, of course, different modes of life, may lose all knowledge of one another, assume different national characters, and form each a distinct language to themselves, totally different in genius and style, though agreeing with one another in the fundamental sounds and general idiom. If, therefore, this particular idiom, formed before their separation, happen to be more peculiarly adapted to the genius of the mother country than of the colonies, these will labour under an inconvenience on this account, which they may never be wholly able to overcome; and this inconvenience must prevent their language from ever attaining to that degree of perfection to which, by the genius of the people, it might otherwise have been carried. Thus various languages may have been formed out of one parent tongue; and thus that happy concurrence of circumstances which has raised some languages to a high degree of perfection, may be easily accounted for, while many ineffectual efforts have been made to raise other languages to the same degree of excellence.

Language. As the knowledge of languages constitutes a great part of erudition, as their beauty and deformities furnish employment to taste, and as these depend much upon the idioms of the different tongues, we shall proceed to make a few remarks upon the advantages and defects of some of those idioms of language with which we are best acquainted.—As the word IDIOM and GENIUS of a language are often confounded, it will be necessary to inform the reader, that by IDIOM we would here be understood to mean *that general mode of arranging words into sentences which prevails in any particular language;* and by the GENIUS of a language, we mean to express *the particular set of ideas which the words of any language, either from their formation or multiplicity, are most naturally apt to excite in the mind of any one who hears it properly uttered.* Thus, although the *English*, *French*, *Italian*, and *Spanish* languages nearly agree in the same general IDIOM, yet the particular GENIUS of each is remarkably different: The *English* is naturally bold, nervous, and strongly articulated; the *French* is weaker, and more flowing; the *Italian* more soothing and harmonious; and the *Spanish* more grave, sonorous, and stately. Now, when we examine the several languages which have been most esteemed in Europe, we find that there are only two IDIOMS among them which are essentially distinguished from one another; and all those languages are divided between these two idioms, following sometimes the one and sometimes the other, either in whole or in part. The languages which may be said to adhere to the first IDIOM, are those which in their construction follow the order of nature; that is, express their ideas in the natural order in which they occur to the mind; the subject which occasions the action appearing first; then the action accompanied with its several modifications; and, last of all, the object to which it has reference.—These may properly be called ANALOGOUS languages; and of this kind are the English, French, and most of the modern languages in Europe.—The languages which may be referred to the other IDIOM, are those which follow no other order in their construction than what the taste or fancy of the composer may suggest; sometimes making the object, sometimes the action, and sometimes the modification of the action, to precede or follow the other parts. The confusion which this might occasion, is avoided by the particular manner of *inflecting* their words, by which they

11 What is meant by the *idiom*, and what by the *genius* of a language.

12 Two idioms among the languages esteemed in Europe.

13 The analogous and

Hebrew word SHUR or SHOR, which signifies an *ox*, into THOR, as likewise did the Phenicians (See *Plut. Vit. Syl.*); hence the Greek ταυρος, the Latin *taurus*, the French *taureau*, and the Italian and Spanish *toro*. The Hebrew word BIT or BEITH, which signifies *cavity*, *capacity*, the *concave* or *inside* of any place, has spread itself far and wide, still retaining nearly the original signification; in the Persian language it is BAD, BED, BHAD, and signifies a *house* or *abode*. In all the dialects of the Gothic tongue, BODE signifies the same thing; hence the English *abide*, *abode*, *booth*, *boat*, and the French *batteau*. In all these instances there is a striking resemblance in sound as well as in sense between the derived and the primitive words; but this is not always the case, even when of the legitimacy of the derivation no doubt can be entertained. It has been shown (see *Boswell's Life of Johnson*), that the French JOUR, *a day*, is derived from the Latin DIES; but it may be certainly traced from a higher source. In many of the oriental dialects, DI, *bright*, is a name of the *sun;* hence the Greek Δις, *Jupiter*, and the Latin DIES, a *day*. From DIES comes DIURNUS; in the pronunciation of which, either by the inaccuracy of the speaker or of the hearer, *diu* is readily confounded with *giu;* then of the ablative of this adjective, corruptly pronounced *giurno*, the Italians make a substantive GIORNO, which by the French is readily contracted into GIOUR or JOUR. From the same root DI, comes Διος, α, ον, the Eolic Διϝ ος, the Latin DIVUS, and the Celtic DHIA, God.

Language. they are made to refer to the others with which they ought to be connected, in whatever part of the sentence they occur, the mind being left at liberty to connect the several parts with one another after the whole sentence is concluded. And as the words may be here transposed at pleasure, those languages may be called TRANSPOSITIVE languages. To this class we must, in an especial manner, refer the *Latin* and *Greek* languages.—As each of these IDIOMS has several advantages and defects peculiar to itself, we shall endeavour to point out the most considerable of them, in order to ascertain with greater precision the particular character and excellence of some of those languages now principally spoken or studied in Europe.

14 the transpositive languages compared with respect to

The partiality which our forefathers, at the revival of letters in Europe, naturally entertained for the Greek and Roman languages, made them look upon every distinguishing peculiarity belonging to them as *one* of the *many* causes of the amazing superiority which those languages evidently enjoyed above every other at that time spoken in Europe.—This blind deference still continues to be paid to them, as our minds are early prepossessed with these ideas, and as we are taught in our earliest infancy to believe, that to entertain the least idea of our own language being equal to the Greek or Latin in any particular whatever, would be a certain mark of ignorance or want of taste.—Their rights, therefore, like those of the church in former ages, remain still to be examined; and we, without exerting our reason to discover truth from falsehood, tamely sit down satisfied with the idea of their undoubted preeminence in every respect. But if we look around us for a moment, and observe the many excellent productions which are to be met with in almost every language of Europe, we must be satisfied, that *even these* are now possessed of *some* powers which might afford at least a presumption, that, if they were cultivated with a proper degree of attention, they might, in *some respects*, be made to rival, if not to excel, those beautiful and justly admired remains of antiquity. Without endeavouring to derogate from their merit, let us, with the cool eye of philosophic reasoning, endeavour to bring before the sacred tribunal of Truth some of those opinions which have been most generally received upon this subject, and rest the determination of the cause on her impartial decision.

The learned reader well knows, that the several changes which take place in the arrangement of the words in every TRANSPOSITIVE language, could not be admitted without occasioning great confusion, unless certain classes of words were endowed with particular variations, by means of which they might be made to refer to the other words with which they ought naturally to be connected. From this cause proceeds the necessity of several variations of *verbs*, *nouns*, and *adjectives*; which are not in the least essential or necessary in the ANALOGOUS languages, as we have pretty fully explained under the article GRAMMAR, to which we refer for satisfaction on this head. We shall in this place consider, whether these variations are an advantage or a disadvantage to language.

As it is generally supposed, that every language whose verbs admit of *inflection*, is on that account much more perfect than one where they are varied by *auxiliaries*; we shall in the first place, examine this with some degree of attention; and that what is said on this head may be the more intelligible, we shall give examples from the Latin and English languages. We make choice of these languages, because the Latin is more purely *transpositive* than the Greek, and the English admits of less *inflection* than any other language that we are acquainted with. Language.

15 diversity of sounds, variety of expressions, and precision of meaning.

If any preference be due to a language from the one or the other method of *conjugating* verbs, it must in a great measure be owing to one or more of these three causes:—Either it must admit of a greater variety of sounds, and consequently more room for harmonious diversity of tones in the language:—or a greater freedom of expression is allowed in uttering any simple idea, by the one admitting of a greater variety in the arrangement of the words which are necessary to express that idea than the other does:—or, lastly, a greater precision and accuracy in fixing the meaning of the person who uses the language, arise from the use of one of these forms, than from the use of the other: for, as every other circumstance which may serve to give a diversity to language, such as the general and most prevalent sounds, the frequent repetition of any one particular letter, and a variety of other circumstances of that nature, which may serve to debase a particular language, are not influenced in the least by the different methods of varying the verbs, they cannot be here considered. We shall therefore proceed to make a comparison of the advantages or disadvantages which may accrue to a language by inflecting its verbs with regard to each of these particulars,—variety of sound, variety of arrangement, and accuracy of meaning.

16 Diversity of sounds.

The *first* particular that we have to examine is, Whether the one method of expressing the variations of a verb admits of a greater variety of sounds? In this respect the *Latin* seems, at first view, to have a great advantage over the *English*: for the words *amo*, *amabam*, *amaveram*, *amavero*, *amem*, &c. seem to be more different from one another than the English translations of these, *I love*, *I did love*, *I had loved*, *I shall have loved*, *I may love*, &c.; for although the syllable AM is repeated in every one of the first, yet as the last syllable usually strikes the ear with greater force and leaves a greater impression than the first, it is very probable that many will think the frequent repetition of the word LOVE in the last instance, more striking to the ear than the repetition of *am* in the former. We will therefore allow this its full weight, and grant that there is as great, or even a greater difference between the sounds of the different *tenses* of a Latin verb, than there is between the words that are equivalent to them in English. But as we here consider the variety of sounds of the language in general, before any just conclusion can be drawn, we must not only compare the different parts of the same verb, but also compare the different verbs with one another in each of these languages. And here, at first view, we perceive a most striking distinction in favour of the *analogous* language over the *inflected*: for as it would be impossible to form a particular set of inflections different from one another for each particular verb, all those languages which have adopted this method have been obliged to reduce their verbs into a small number of classes; all the words of each of which classes commonly

Language. monly called *conjugations*, have the several variations of the *modes*, *tenses*, and *persons*, expressed exactly in the same manner, which must of necessity introduce a similarity of sounds into the language in general, much greater than where every particular verb always retains its own distinguishing sound. To be convinced of this, we need only repeat any number of verbs in Latin and English, and observe on which side the preference with respect to variety of sounds must fall.

Pono,	*I put.*	Moveo,	*I move.*
Dono,	*I give.*	Doleo,	*I ail.*
Cano,	*I sing.*	Lugeo,	*I mourn.*
Sono,	*I sound.*	Obeo,	*I die.*
Orno,	*I adorn.*	Gaudeo,	*I rejoice.*
Pugno,	*I fight.*	Incipio,	*I begin.*
Lego,	*I read.*	Facio,	*I make.*
Scribo,	*I write.*	Fodio,	*I dig.*
Puto,	*I think.*	Rideo,	*I laugh.*
Vivo,	*I live.*	Impleo,	*I fill.*
Ambulo,	*I walk.*	Abstineo,	*I forbear.*

The similarity of sounds is here so obvious in the Latin, as to be perceived at the first glance; nor can we be surprised to find it so, when we consider that all their regular verbs, amounting to 4000 or upwards, must be reduced to four conjugations, and even these differing but little from one another, which must of necessity produce the sameness of sounds which we here perceive; whereas, every language that follow the natural order, like the English, instead of this small number of uniform terminations have almost as many distinct sounds as original verbs in their language.

But if instead of the present of the indicative mood, we should take almost any other tense of the Latin verb, the similarity of sounds would be still more perceptible, as many of these tenses have the same termination in all the four conjugations, particularly in the imperfect of the indicative, as below.

Pone-bam;	*I did put,*	*I put.*
Dona-bam;	*I did give,*	*I gave.*
Cane-bam;	*I did sing,*	*I sung.*
Sona-bam;	*I did sound,*	*I sounded.*
Orna-bam;	*I did adorn,*	*I adorned.*
Pugna-bam;	*I did fight,*	*I fought.*
Lege-bam;	*I did read,*	*I read.*
Scribe-bam;	*I did write,*	*I wrote.*
Puta-bam;	*I did think,*	*I thought.*
Vive-bam;	*I did live,*	*I lived.*
Abula-bam;	*I did walk,*	*I walked.*
Move-bam;	*I did move,*	*I moved.*
Dole-bam;	*I did ail,*	*I ailed.*
Luge-bam;	*I did mourn,*	*I mourned.*
Obi-bam;	*I did die,*	*I died.*
Gaude-bam;	*I did rejoice,*	*I rejoiced.*
Incipie-bam;	*I did begin,*	*I began.*
Facie-bam;	*I did make,*	*I made.*
Fodie-bam;	*I did dig,*	*I dug.*
Ride-bam;	*I did laugh,*	*I laughed.*
Imple-bam;	*I did fill,*	*I filled.*
Abstine-bam;	*I did forbear,*	*I forbore.*

Language.

It is unnecessary to make any remarks on the Latin words in this example: but in the English translation we have carefully marked in the first column the words without any inflection; and in the second, have put down the same meaning by an inflection of our verb; which we have been enabled to do, from a peculiar excellency in our own language unknown to any other either ancient or modern. Were it necessary to pursue this subject farther, we might observe, that the *perfect* tense in all the conjugations ends universally in I, the *pluperfect* in ERAM, and the *future*, in AM or BO; in the subjunctive mood, the *imperfect universally* in REM, the *perfect* in ERIM, the *pluperfect* in ISSEM, and the *future* in ERO: and as a still greater sameness is observable in the different variations for the persons in these tenses, seeing the first person plural in all tenses ends in MUS, and the second person in TIS, with little variation in the other persons; it is evident that, in respect to diversity of sounds, this method of conjugating verbs by *inflexion*, is greatly inferior to the more natural method of expressing the various connexions and relations of the verbal attributive by different words, usually called *auxiliaries*.

17 Variety of expressions.

The *second* particular, by which the different methods of marking the relation of the verbal attributive can affect language, arises from the variety of expressions which either of these may admit of in uttering the same sentiment. In this respect, likewise, the method of conjugation by inflection seems to be deficient. Thus the present of the indicative mood in Latin can at most be expressed only in two ways, viz. SCRIBO and EGO SCRIBO; which ought perhaps in strictness to be admitted only as one: whereas, in English, we can vary it in four different ways, viz. 1*st*, I WRITE; 2*dly*, I DO WRITE; 3*dly*, WRITE I DO; 4*thly*, WRITE DO I (D). And if we consider the further variation which these receive in power as well as in sound, by having

(D) We are sufficiently aware, that the last variation cannot in strictness be considered as good language; although many examples of this manner of using it in serious composition, both in poetry and prose, might be easily produced from the best authors in the English language.—But however unjustifiable it may be to use it in serious composition; yet, when judiciously employed in works of humour, this and other forced expressions of the like nature produce a fine effect, by giving a burlesque air to the language, and beautifully contrasting it to the purer diction of solid reasoning. The sagacious Shakespeare, has, on many occasions, showed how successfully these may be employed in composition, particularly in drawing the character of *ancient Pistol* in Henry V. Without this liberty, Butler would have found greater difficulty in drawing the inimitable character of Hudibras.—Let this apology suffice for having inserted this and other variations of the same kind; which, although they may be often improper for serious composition, have still their use in language.

Language. the emphasis placed on the different words; instead of four, we will find eleven different variations: thus, 1*st*, I *write*, with the emphasis upon the *I*;—2*dly*, I WRITE, with the emphasis upon the word WRITE. Let any one pronounce these with the different emphasis necessary, and he will be immediately satisfied that they are not only distinct from each other with respect to meaning, but also with regard to sound; and the same must be understood of all the other parts of this example.

3. I *do write.*
4. *I* DO *write.*
5. *I do* WRITE.
6. *Write I do.*
7. *Write* I *do.*
8. *Write I* DO.
9. *Write do I.*
10. *Write* DO *I.*
11. *Write do* I.

None of the Latin tenses admit of more variations than the two above mentioned: nor do almost any of the English admit of fewer than in the above example; and several of these phrases, which must be considered as exact translations of some of the tenses of the Latin verb, admit of many more. Thus the imperfect of the subjunctive mood, which in Latin admits of the above two variations, admits in English of the following:

1. *I might have written.*
2. *Written I might have.*
3. *Have written I might.*
4. *Written might have I.*
5. *I written might have.*
6. *Have written might I.*

And if we likewise consider the variations which may be produced by a variation of the emphasis, they will be as under:

1. I *might have written.*
2. *I* MIGHT *have written.*
3. *I might* HAVE *written.*
4. *I might have* WRITTEN.
5. *Written I might have.*
6. *Written* I *might have.*
7. *Written I* MIGHT *have.*
8. *Written I might* HAVE.
9. *Have written I might.*
10. *Have* WRITTEN *I might.*
11. *Have written* I *might.*
12. *Have written I* MIGHT.
13. *Written might have I.*
14. *Written* MIGHT *have I.*
15. *Written might* HAVE *I.*
16. *Written might have* I.
17. I *written might have.*
18. *I* WRITTEN *might have.*
19. *I written* MIGHT *have.*
20. *I written might* HAVE.
21. *Have written might I.*
22. *Have* WRITTEN *might I.*
23. *Have written* MIGHT *I.*
24. *Have written might* I.

In all 24 variations, instead of two.—If we likewise consider, that the Latins were obliged to employ the same word, not only to express "I *might* have written, bus also, "I *could*, I *would*, or I *should* have written;" each of which would admit of the same variations as the word *might;* we have in all *ninety-six* different expressions in English for the same phrase which in Latin admits only of two, unless they have recourse to other forced turns of expression, which the defects of their verbs in this particular has compelled them to invent.

But if it should be objected, that the last circumstance we have taken notice of as a defect, can only be considered as a defect of the Latin language, and is not to be attributed to the *inflection* of their verbs, seeing they might have had a particular tense for each of these different words *might*, *could*, *would*, and *should;* we answer, that, even admitting this excuse as valid; the superiority of the analogous language, as such, still remains in this respect as 12 to 1.—Yet even this concession is greater than ought to have been made: For as the difficulty of forming a sufficient variety of words for all the different modifications which a verb may be made to undergo is too great for any rude people to overcome; we find, that every nation which has adopted this mode of inflection, not excepting the Greeks themselves, has been obliged to remain satisfied with fewer words than would have been necessary even to effect this purpose, and make the same word serve a double, treble, or even quadruple office, as in the Latin tense which gave rise to these observations: So that, however in physical necessity, this may not be chargeable upon the particular mode of construction, yet in moral certainty it must always be the case; and therefore we may safely conclude, that the mode of varying verbs by *inflection* affords less variety in the arrangement of the words of the particular phrases, than the method of varying them by the help of auxiliaries. Language.

But if there should still remain any shadow of doubt in the mind of the reader, whether the method of varying the verbs by *inflection* is inferior to that by *auxiliaries*, with regard to diversity of sounds, or variety of expression; there cannot be the least doubt, but that with respect to precision, distinctness, and accuracy, in expressing any idea, the latter enjoys a superiority beyond all comparison.—Thus the Latin verb *Amo*, may be Englished either by the words, *I love*, or *I do love*, and the emphasis placed upon any of the words that the circumstances may require; by means of which, the meaning is pointed out with a force and energy which it is altogether impossible to produce by the use of any single word. The following line from Shakespeare's *Othello* may serve as an example: 18 Precision of meaning, in which the English is superior to the Latin language.

———Excellent wretch!
Perdition catch my soul, but *I* DO *love* thee:

In which the strong emphasis upon the word DO, gives it a force and energy which conveys, in an irresistible manner, a most perfect knowledge of the situation of the mind of the speaker at the time.—That the whole energy of the expression depends upon this seemingly insignificant word, we may be atonce satisfied of, by keeping it away in this manner:

———Excellent wretch!
Perdition catch my soul, but *I love* thee.

How poor—how tame—how insignificant is this, when compared with the other! Here nothing remains but a tame assertion, ushered in with a pompous exclamation which could not here be introduced with any degree of propriety. Whereas, in the way that Shakespeare has left it to us, it has an energy which nothing can surpass; for, overpowered with the irresistible force of Desdemona's charms, this strong exclamation is extorted from the soul of Othello in spite of himself. Surprised at this tender emotion, which brings to his mind all those amiable qualities for which he had so much esteemed her, and at the same time fully impressed with the firm persuasion of her guilt, he bursts out into that seemingly inconsistent exclamation, *Excellent wretch!* and then he adds in the warmth of his surprise,—thinking it a thing most astonishing, that any warmth of affection should still remain in his breast,

breast, he even confirms it with an oath,—*Perdition catch my soul, but I* DO *love thee.*—"In spite of all the falsehoods with which I know thou hast deceived me—in spite of all the crimes of which I know thee guilty—in spite of all those reasons for which I ought to hate thee—in spite of myself,—still I find that I love—yes, I DO love thee." We look upon it as a thing altogether impossible to transfuse the energy of this expression into any language whose verbs are regularly inflected.

In the same manner we might go through all the other tenses, and show that the same superiority is to be found in each. Thus, in the *perfect tense* of the Latins, instead of the simple AMAVI, we say I HAVE LOVED; and by the liberty we have of putting the emphasis upon any of the words which compose this phrase, we can in the most accurate manner fix the precise idea which we mean to excite; for if we say, *I have loved*, with the emphasis upon the word *I*, it at once points out the person as the principal object in that phrase, and makes us naturally look for a contrast in some other person, and the other parts of the phrase become subordinate to it;—"HE *has loved* thee much, but I *have loved* thee infinitely more." The Latins too, as they were not prohibited from joining the pronoun with their verb, were also acquainted with this excellence, which Virgil has beautifully used in this verse:

————Nos *patriam fugimus;*
Tu, *Tityre, lentus in umbra*, &c.

But *we* are not only enabled thus to distinguish the person in as powerful a manner as the Latins, but can also with the same facility point out any of the other circumstances as principals; for if we say, with the emphasis upon the word *have*, "I HAVE *loved*," it as naturally points out the time as the principal object, and makes us to look for a contrast in that peculiarity, I HAVE: "I *have* loved indeed;—my imagination *has* been led astray—my reason *has* been perverted;—but, *now* that time has opened my eyes, I can smile at those imaginary distresses which once perplexed me."—In the same manner we can put the emphasis upon the other word of the phrase *loved*,—I *have* LOVED."—Here the passion is exhibited as the principal circumstance; and as this can never be excited without some object, we naturally wish to know the object of that passion—"Who! what have you *loved?*" are the natural questions we would put in this case. "I have LOVED——Eliza."——In this manner we are, on all occasions, enabled to express, with the utmost precision, that particular idea which we would wish to excite, so as to give an energy and perspicuity to the language, which can never be attained by those languages whose verbs are conjugated by inflection: and if to this we add the inconvenience which all inflected languages are subject to, by having too small a number of tenses, so as to be compelled to make one word on many occasions supply the place of two, three, or even four, the balance is turned still more in our favour.—Thus, in Latin, the same word AMABO stands for *shall* or *will* love, so that the reader is left to guess from the context which of the two meanings it was most likely the writer had in view.—In the same manner, *may* or *can* love are expressed by the same word AMEM; as are also *might*, *could*, *would*, or *should*, love, by the single word AMAREM, as we have already observed; so that the reader is left to guess which of these four meanings the writer intended to express: which occasions a perplexity very different from that clear precision which our language allows of, by not only pointing out the different words, but also by allowing us to put the emphasis upon any of them we please, which superadds energy and force to the precision it would have had without that assistance.

19
The method of conjugating verbs by inflection inferior to that which is performed by auxiliaries.

Upon the whole, therefore, after the most candid examination, we must conclude, that the method of conjugating verbs by *inflection* is inferior to that which is performed by the help of *auxiliaries*;—because it does not afford such a diversity of sounds,—nor allow such variety in the arrangement of expression for the same thought,—nor give so great distinction and precision in the meaning.—It is, however, attended with one considerable advantage above the other method: for as the words of which it is formed are necessarily of great length, and more sonorous, than in the analogous languages, it admits of a more flowing harmony of expression; for the number of monosyllables in this last greatly checks that pompous dignity which naturally results from longer words. Whether this single advantage is sufficient to counterbalance all the other defects with which it is attended, is left to the judgment of the reader to determine:—but we may remark, before we quit the subject, that even this excellence is attended with some peculiar inconveniences, which shall be more particularly pointed out in the sequel.

But perhaps it might still be objected, that although the comparisons we have made above may be fair, and the conclusion just, with regard to the Latin and English languages; yet it does not appear clear, that on that account the method of conjugating verbs by *inflection* is *inferior* to that by *auxiliaries*; for although it be allowed that the Latin language is defective in point of tenses; yet if a language were formed which had a sufficient number of inflected tenses to answer every purpose; if it had, for instance, a word properly formed for every variation of each tense: one for *I love*, another for *I do love*; one for *I shall*, another for *I will love*; one for *I might*, another for *I could*, and *would*, and *should love*; and so on through all the other tenses; that this language would not be liable to the objections we have brought against the inflection of verbs; and that of course the objections we have brought are only valid against those languages which have followed that mode and executed it imperfectly.—We answer, that although this would in some measure remedy the evil, yet it would not remove it entirely. For, in the first place, unless every verb, or every small number of verbs, were conjugated in one way, having the sound of the words in each tense, and division of tenses, as we may say, different from all the other conjugations,—it would always occasion a sameness of sound, which would in some measure prevent that variety of sounds so proper for a language. And even if this could be effected, it would not give such a latitude to the expression as auxiliaries allow; for although there should be two words, one for *I might*, and another for *I could* love; yet as these are single words, they cannot be varied; whereas, by auxiliaries, either

Language. of these can be varied 24 different ways, as has been shown above. In the last place, no single word can ever express all that variety of meaning which we can do by the help of our auxiliaries and the emphasis. *I have loved*, if expressed by any one word, could only denote at all times one distinct meaning; so that to give it the power of ours, three distinct words at least would be necessary. However, if all this were done; that is, if there were a distinct conjugation formed for every 40 or 50 verbs;—if each of the tenses were properly formed, and all of them different from every other tense as well as every other verb; and these all carried through each of the different persons, so as to be all different from one another;—and if likewise there were a distinct word to mark each of the separate meanings which the same tense could be made to assume by means of the emphasis; and if all this infinite variety of words could be formed in a distinct manner, different from each other, and harmonious; this language would have powers greater than any that could be formed by auxiliaries, if it were possible for the human powers to acquire such a degree of knowledge as to be able to employ it with facility. But how could this be attained, since upwards of ten thousand words would be necessary to form the variations of any one verb, and a hundred times that number would not include the knowledge of the verbs alone of such a language? (E)—How much, therefore, ought we to admire the simple perspicuity of our language, which enables us, by the proper application of ten or twelve seemingly trifling words, the meaning and use of which can be attained with the utmost ease, to express all that could be expressed by this unwieldy apparatus? What can equal the simplicity or the power of the one method, but the well known powers of the 24 letters, the knowledge of which can be obtained with so much ease—and their powers know no limits?—or, what can be compared to the fancied perfection of the other, but the transcript of it which the Chinese seem to have formed in their unintelligible language?

Having thus considered pretty fully the advantages and defects of each of these two methods of varying verbs, we cannot help feeling a secret wish arise in our mind, that there had been a people sagacious enough to have united the powers of the one method with those of the other; nor can we help being surprised, that among the changes which took place in the several languages of Europe after the downfal of the Roman monarchy, some of them did not accidentally stumble on the method of doing it. From many concurring circumstances, it seems probable that the greatest part, if not all the Gothic nations that overran Italy at that time, had their verbs varied by the help of auxiliaries; and many of the modern European languages which have sprung from them, have so far borrowed from the Latin, as to have some of the tenses of their verbs inflected: yet the English alone have in Language. any instance combined the joint powers of the two: which could only be done by forming inflections for the different tenses in the same manner as the Latins, and at the same time retaining the original method of varying them by auxiliaries; by which means either the one or the other method could have been employed as occasion required. We have luckily two tenses formed in that way; the *present* of the indicative, and the aorist of the *past*. In almost all our verbs these can be declined either with or without auxiliaries. Thus the present, without an auxiliary, is, *I love, I write, I speak;* with an auxiliary, *I do write, I do love, I do speak*. In the same manner, the past tense, by inflection, is, *I loved, I wrote, I spoke;* by auxiliaries, *I did love, I did speak, I did write*. Every author, who knows any thing of the power of the English language, knows the use which may be made of this distinction. What a pity is it that we should have stopt short so soon! how blind was it in many other nations to imitate the defects without making a proper use of that beautiful language which is now numbered among the dead!

20 Analogous and transpositive languages compared with respect to the cases of nouns.

After the verbs, the next most considerable variation we find between the *analagous* and *transpositive* languages is in the nouns; the latter varying the different cases of these by *inflection;* whereas the former express all the different variations of them by the help of other words, prefixed, called *prepositions*. Now, if we consider the advantages or disadvantages of either of these methods under the same heads as we have done the verbs, we shall find, that with regard to the first particular, viz. variety of sounds, almost the same remarks may be made as upon the verbs; for if we compare any particular noun by it itself, the variety of sound appears much greater between the different cases in the *transpositive*, than between the translation of these in the *analogous* language. Thus REX, REGIS, REGI, REGEM, &c. are more distinct from one another, in point of sound, than the translation of these, *a king, of a king, to a king, a king*, &c. But if we proceed one step further, and consider the variety which is produced in the language *in general* by the one or the other of these methods, the case is entirely reversed. For as it would have been impossible to form distinct variations, different from one another, for each case of every noun, they have been obliged to reduce all their nouns into a few general classes, called *declensions*, and to give to all those included under each class the same termination in every case; which produces a like similarity of sound with what we already observed was occasioned to the verbs from the same cause; whereas in the analogous languages, as there is no necessity for any constraint, there is almost as a great a variety of sounds as there are of nouns. The Latins have only five different declensions; so that all the great number of words of this general order must be reduced to the very small diversity of sounds which these few classes admit

21 The former superior in diversity of sound.

(E) This assertion may perhaps appear to many very much exaggerated: but if any should think so, we only beg the favour that he will set himself to mark all the variations of tenses, mode, person, and number, which an English verb can be made to assume, varying each of these in every way that it will admit, both as to the diversity of expression and the emphasis; he will soon be convinced that we have here said nothing more than enough.

admit of; and even the sounds of these few classes are not so much diversified as they might have been, as many of the different *cases* in the different *declensions* have exactly the same sounds, as we shall have occasion to remark more fully hereafter. We might here produce examples to show the great *similarity* of sounds between different nouns in the Latin language, and *variety* in the English, in the same way as we did of the verbs: but as every reader in the least acquainted with these two languages can satisfy himself in this particular, without any further trouble than by marking down any number of Latin nouns, with their translations into English, we think it unnecessary to dwell longer on this particular.

But if the inflection of nouns is a disadvantage to a language in point of diversity of sounds, it is very much the reverse with regard to the variety it allows in the arranging the words of the phrase. Here, indeed, the transpositive language shines forth in all its glory, and the analogous must yield the palm without the smallest dispute. For as the *nominative case* (or that noun which is the cause of the energy expressed by the verb) is different from the *accusative* (or that noun upon which the energy expressed by the verb is exerted), these may be placed in any situation that the writer shall think proper, without occasioning the smallest confusion: whereas in the analogous languages, as these two different states of the noun are expressed by the same word, they cannot be distinguished but by their position alone: so that the noun which is the efficient cause must always precede the verb, and that which is the passive subject must follow; which greatly cramps the harmonious flow of composition.—Thus the Latins, without the smallest perplexity in the meaning, could say either *Brutum amavit Cassius*, or *Cassius amavit Brutum*, or *Brutum Cassius amavit*, or *Cassius Brutum amavit*. As the termination of the word *Cassius* always points out that it is in the *nominative case*, and therefore that he is the person from whom the energy proceeds; and in the same manner, as the termination of the word *Brutum* points out that it is in the *accusative case*, and consequently that he is the object upon whom the energy is exerted; the meaning continues still distinct and clear, notwithstanding of all these several variations: whereas in the English language, we could only say, *Cassius loved Brutus*, or, by a more forced phraseology, *Cassius Brutus loved*: Were we to reverse the case, as in the Latin, the meaning also would be reversed; for if we say *Brutus loved Cassius*, it is evident, that instead of being the person beloved, as before, *Brutus* now becomes the person from whom the energy proceeds, and *Cassius* becomes the object beloved.—In this respect, therefore, the analogous languages are greatly inferior to the transpositive; and indeed it is from this single circumstance alone that they derive their chief excellence.

22 Inferior with regard to the arrangement of words in a sentence; but

But although it thus appears evident, that any language, which has a particular variation of its nouns to distinguish the *accusative* from the *nominative case*, has an advantage over those languages which have none; yet it does not appear that any other of their *cases* adds to the variety, but rather the reverse; for, in Latin, we can only say *Amor Dei;* in English the same phrase may be rendered, either, *the love of God* —*of God the love*,—or, by a more forced arrangement, *God the love of*. And as these oblique cases, as the Latins called them except the accusative, are clearly distinguished from one another, and from the nominative, by the preposition which accompanies them, we are not confined to any particular arrangement with regard to these as with the accusative, but may place them in what order we please, as in Milton's elegant invocation at the beginning of Paradise Lost:

> Of man's first disobedience, and the fruit
> Of that forbidden tree, whose mortal taste
> Brought death into the world, and all our woe,
> With loss of Eden, till one greater Man
> Restore us, and regain the blissful seat,
> Sing, heavenly Muse.

In this sentence the transposition is almost as great as the Latin language would admit of, and the meaning as distinct as if Milton had begun with the plain language of prose, thus—"Heavenly muse, sing of man's first disobedience," &c.

Before we leave this head, we may remark, that the little attention which seems to have been paid to this peculiar advantage derived from the use of an accusative case different from the nominative, is somewhat surprising. The Latins, who had more occasion to attend to this with care than any other nation, and even the Greeks themselves, have in many cases overlooked it, as is evident from the various instances we meet with in their languages where this is not distinguished. For all nouns of the neuter gender both in Greek and Latin have in every declension their nominative and accusative singular alike. Nor in the plural of such nouns is there any distinction between these two cases; and in Latin all nouns whatever of the third, fourth, and fifth declensions, of which the number is very considerable, have their nominative and accusative plural alike. So that their language reaps no advantage in this respect from almost one half of their nouns. Nor have any of the modern languages in Europe, however much they may have borrowed from the ancient languages in other respects, attempted to copy from them in this particular; from which perhaps more advantage would have been gained, than from copying all the other supposed excellencies of their language.—But to return to our object.

23 greatly superior as to precision of meaning.

It remains that we consider, whether the inflection of nouns gives any advantage over the method of defining them by prepositions, in point of distinctness and precision of meaning? But in this respect, too, the analogous languages must come off victorious. Indeed this is the particular in which their greatest excellence consists; nor was it, we believe, ever disputed, but that, in point of accuracy and precision, this method must excel all others, however it may be defective in other respects. We observed under this head, when speaking of verbs, that it might perhaps be possible to form a language by inflection which should be capable of as great accuracy as in the more simple order of auxiliaries: but this would have been such an infinite labour, that it was not to be expected that ever human powers would have been able to accomplish it. More easy would it have been to have formed the several inflections of the nouns so different from one another, as to have rendered it impossible ever to mistake the meaning. Yet even this has not been attempted. And as we find that those languages

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languages which have adopted the method of inflecting their verbs are more imperfect in point of precision than the other, so the same may be said of inflecting the nouns: for, not to mention the energy which the analogous languages acquire by putting the accent upon the noun, or its preposition (when in an oblique case), according as the subject may require, to express which variation of meaning no particular variety of words have been invented in any inflected language, they are not even complete in other respects. The Latin, in particular, is in many cases defective, the same termination being employed in many instances for different cases of the same noun. Thus the genitive and dative singular, and nominative and vocative plural, of the first declension, are all exactly alike, and can only be distinguished from one another by the formation of the sentence;—as are also the nominative, vocative, and ablative singular, and the dative and ablative plural. In the second, the genitive singular, and nominative and vocative plural, are the same, as are also the dative and ablative singular, and dative and ablative plural; except those in UM, whose nominative, accusative, and vocative singular, and nominative, accusative, and vocative plural, are alike. The other three declensions agree in as many of their cases as these do; which evidently tends to perplex the meaning, unless the hearer is particularly attentive to and well acquainted with the particular construction of the other parts of the sentence; all of which is totally removed, and the clearest certainty exhibited at once, by the help of prepositions in the analogous languages.

It will hardly be necessary to enter into such a minute examination of the advantages or disadvantages attending the variation of *adjectives;* as it will appear evident, from what has been already said, that the endowing them with terminations similar to, and corresponding with, *substantives*, must tend still more to increase the similarity of sounds in any language, than any of those particulars we have already taken notice of; and were it not for the liberty which they have, in transpositive languages, of separating the adjective from the substantive, this must have occasioned such a jingle of similar sounds as could not fail to have been most disgusting to the ear: but as it would have been impossible in many cases, in those languages where the verbs and nouns are inflected, to have pronounced the words which ought to have followed each other, unless their adjectives could have been separated from the substantives; therefore, to remedy this inconvenience, they were forced to devise this unnatural method of inflecting them also; by which means it is easy to recognise to what substantive any adjective has a reference, in whatever part of the sentence it may be placed. In these languages, therefore, this inflection, both as to gender, number, and case, becomes absolutely necessary; and, by the diversity which it admitted in the arranging the words of the several phrases, might counterbalance the jingle of similar sounds which it introduced into the language.

24 These two different *idioms* of language compared as to their general effects.

Having thus examined the most striking particulars in which the transpositive and analogous languages differ, and endeavoured to show the general tendency of every one of the particulars separately, it would not be fair to dismiss the subject without considering each of these as a whole, and pointing out their general tendency in that light: for we all know, that it often happens in human inventions, that every part which composes a whole, taken separately, may appear extremely fine; and yet, when all these parts are put together, they may not agree, but produce a jarring and confusion very different from what we might have expected. We therefore imagine a few remarks upon the genius of each of these two distinct IDIOMS of language considered as a whole will not be deemed useless.

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25 The transpositive idiom fittest for solemn composition.

Although all languages agree in this respect, that they are the means of conveying the ideas of one man to another; yet as there is an infinite variety of ways in which we might wish to convey these ideas, sometimes by the easy and familiar mode of conversation, and at other times by more solemn addresses to the understanding, by pompous declamation, &c. it may so happen, that the genius of one language may be more properly adapted to the one of these than the other, while another language may excel in the opposite particular. This is exactly the case in the two general IDIOMS of which we now treat. Every particular in a *transpositive* language, is peculiarly calculated for that solemn dignity which is necessary for pompous orations. Long sounding words, formed by the inflection of the different parts of speech,—flowing periods, in which the attention is kept awake by the harmony of the sounds, and in expectation of that word which is to unravel the whole,—if composed by a skilful artist, are admirably suited to that solemn dignity and awful grace which constitute the essence of a public harangue. On the contrary, in private conversation, where the mind wishes to unbend itself with ease, these become so many clogs which encumber and perplex. At these moments we wish to transfuse our thoughts with ease and facility—we are tired with every unnecessary syllable—and wish to be freed from the trouble of attention as much as may be. Like our state robes, we would wish to lay aside our pompous language, and enjoy ourselves at home with freedom and ease. Here the solemnity and windings of the *transpositive* language are troublesome; while the facility with which a sentiment can be expressed in the *analogous* language is the thing that we wish to acquire. Accordingly in Terence and Plautus, where the beauties of dialogue are most charmingly displayed, transposition is sparingly used. In this humble, though most engaging sphere, the analogous language moves unrivalled; in this it wishes to indulge, and never tires. But it in vain attempts to rival the *transpositive* in dignity and pomp: The number of monosyllables interrupts the flow of harmony; and although they may give a greater variety of sounds, yet they do not naturally possess that dignified gravity which suits the other language. This, then, must be considered as the striking particular in the genius of these two different IDIOMS, which marks their characters.

26 The analogous for private conversation and written dialogue.

If we consider the effects which these two different characters of language must naturally produce upon the people who employ them, we will soon perceive, that the genius of the *analogous* language is much more favourable for the most engaging purposes of life, the civilizing the human mind by mutual intercourse of thought, *than the transpositive*. For as it is chiefly by the use of speech that man is raised above the

 the brute creation:—as it is by this means he improves every faculty of his mind, and to the observations which he may himself have made, has the additional advantage of the experience of those with whom he may converse, as well as the knowledge which the human race have acquired by the accumulated experience of all preceding ages;—as it is by the enlivening glow of conversation that kindred souls catch fire from one another, that thought produces thought, and each improves upon the other, till they soar beyond the bounds which human reason, if left alone, could ever have aspired to;—we must surely consider that language as the most beneficial to society, which most effectually removes those bars that obstruct its progress. Now, the genius of the *analogous* languages is so easy, so simple and plain, as to be within the reach of every one who is born in the kingdom where it is used to speak it with facility; even the rudest among the vulgar can hardly fall into any considerable grammatical errors: whereas, in the *transpositive* languages, so many rules are necessary to be attended to, and so much variation is produced in the meaning, by the slightest variations in the sound, that it requires a study far above the reach of the illiterate mechanic ever to attain. So that, how perfect soever the language may be when spoken with purity, the bulk of the nation must ever labour under the inconvenience of rudeness and inaccuracy of speech, and all the evils which this naturally produces.—Accordingly, we find, that in Rome, a man, even in the highest rank, received as much honour, and was as much distinguished among his equals, for being able to converse with ease, as a modern author would be for writing in an easy and elegant style; and Cæsar among his contemporaries was as much esteemed for his superiority in speaking the language in ordinary conversation with ease and elegance, as for his powers of oratory, his skill in arms, or his excellence in literary composition. It is needless to point out the many inconveniences which this must unavoidably produce in a state. It is sufficient to observe, that it naturally tends to introduce a vast distinction between the different orders of men; to set an impenetrable barrier between those born in a high and those born in a low station; to keep the latter in ignorance and barbarity, while it elevates the former to such a height as must subject the other to be easily led by every popular demagogue.—How far the history of the nations who have followed this IDIOM of language confirms this observation, every one is left to judge for himself.

Having thus considered LANGUAGE in general, and pointed out the genius and tendency of the two most distinguished IDIOMS which have prevailed; we shall close these remarks with a few observations upon the particular nature and genius of those languages which are now chiefly spoken or studied in Europe.

27 Observations on those languages which are now chiefly spoken or studied in Europe.

Of all the nations whose memory history has transmitted to us, none have been so eminently distinguished for their literary accomplishments, as well as acquaintance with the polite arts, as the Greeks: nor are we as yet acquainted with a language possessed of so many advantages, with so few defects, as that which they used, and which continues still to be known by their name.—The necessary connexion between the progress of knowledge and the improvement of language, has been already explained; so that it will not be surprising to find their progress in the one keep pace with that of the other: but it will be of utility to point out some advantages which that distinguished people possessed, which other nations, perhaps not less distinguished for talents or taste, have not enjoyed, which have contributed to render their language the most universally admired in ancient as well as in modern times.

28 The great superiority of the Greek language, owing to what causes.

It has been already observed, that the original inhabitants of Greece who were gross savages, and whose language of course would be very rude and narrow, were first tamed by the Pelasgi, an eastern or an Egyptian tribe. From the east it is well known that arts and sciences were spread over the rest of the world, and that Egypt was one of the countries first civilized. The language, therefore, imported into Greece by the Pelasgi would be pure from the fountain head, and much more perfect in its structure than if it had been transmitted through many nations. But this was not the only circumstance highly fortunate for the Greek language. Before it had time to be fully established among the people, its asperities, which it had in common with the other dialects of the east, were polished away by such a succession of poets, musicians, philosophers and legislators, from different countries, as never appeared in any other nation at a period so early as to give their genius and taste its full influence. In this respect, no people were ever so eminently distinguished as the ancient Greeks, who had their Orpheus, their Linus, their Cecrops, and their Cadmus, who introduced their different improvements at a time when the nation had no standard of taste formed by itself. Hence the original sounds of the Greek language are the most harmonious, and the most agreeable to the ear, of any that have hitherto been invented. They are indeed agreeable to every person who hears them, even when the meaning of the word is not understood; whereas almost all other languages, till they are understood, appear, to an ear which has not been accustomed to them, jarring and discordant. This is the fundamental excellence of that justly admired language: nor have the people failed to improve this to the utmost of their power, by many aids of their own invention. The Greek language is of the *transpositive* kind: but a people so lively, so acute, and so loquacious, could ill bear the ceremonious restraint to which that mode of language naturally subjected them: and have therefore, by various methods, freed it in a great measure from the stiffness which that produced. In inflecting their nouns and verbs, they sometimes prefix a syllable, and sometimes add one; which, besides the variety that it gives to the sounds of the language, adds greatly to the distinctness, and admits of a more natural arrangement of the words than in the Latin, and of consequence renders it much fitter for the easiness of private conversation: and indeed the genius of the people so far prevailed over the *idiom* of the language, as to render it, in the age of its greatest perfection, capable of almost as much ease, and requiring almost as little transposition of words, as those languages which have been called *analogous*. But as those nations who spoke this language were all governed by popular assemblies, and as no authority could be obtained among them but by a skill in rhetoric and the powers of persuasion; it became

Language. became necessary for every one, who wished to acquire power or consideration in the state, to improve himself in the knowledge of that language, in the use of which alone he could expect honours or reputation. Hence it happened, that while the vivacity of the people rendered it easy, the great men studiously improved every excellence that it could reap from its powers as a *transpositive* language; so that, when brought to its utmost perfection by the amazing genius of the great Demosthenes, it attained a power altogether unknown to any other language.—Thus happily circumstanced, the Greek language arrived at that envied pre-eminence which it still justly retains. From the progress of arts and sciences; from the gaiety and inventive genius of the people; from the number of free states into which Greece was divided, each of which invented words of its own, all of which contributed to the general stock; and from the natural communication which took place between these states, which excited in the strongest degree the talents of the people; it acquired a copiousness unknown to any ancient language, and excelled by few of the moderns.—In point of harmony of numbers, it is altogether unrivalled; and on account of the ease as well as dignity which, from the causes above mentioned, it acquired, it admits of perfection in a greater number of particular kinds of composition than any other language known. —The irresistible force and overwhelming impetuosity of Demosthenes seem not more natural to the genius of the language, than the more flowery charms of Plato's calm and harmonious cadences, or the unadorned simplicity of Xenophon; nor does the majestic pomp of Homer seem to be more agreeable to the genius of the language in which he wrote, than the more humble strains of Theocritus, or the laughing festivity of Anacreon: Equally adapted to all purposes, when we peruse any of these authors, we would imagine the language was most happily adapted for his particular style alone. The same powers it likewise, in a great measure, possessed for conversation; and the dialogue seems not more natural for the dignity of Sophocles or Euripides, than for the more easy tenderness of Menander, or buffoonery of Aristophanes.—With all these advantages, however, it must be acknowledged, that it did not possess that unexceptionable clearness of meaning which some analogous languages enjoy, or that characteristic force which the emphasis properly varied has power to give, were not these defects counterbalanced by other causes which we shall afterwards point out.

29 The Latin language inferior to the Greek; and why.

The Romans, a people of fierce and warlike dispositions, for many ages during the infancy of their republic, more intent on pursuing conquests and military glory than in making improvements on literature or the fine arts, bestowed little attention to their language. Of a disposition less social or more phlegmatic than the Greeks, they gave themselves no trouble about rendering their language fit for conversation; and it remained strong and nervous, but, like their ideas, was limited and confined. More disposed to command respect by the power of their arms, than by the force of persuasion, they despised the more effeminate powers of speech: so that, before the Punic wars, their language was perhaps more reserved and uncourtly than any other at that time known.—But after their rival Carthage was destroyed, and they had no longer that powerful curb upon their ambition; when riches flowed in upon them by the multiplicity of their conquests; —luxury began to prevail, the stern austerity of their manners to relax, and selfish ambition to take place of that disinterested love for their country so eminently conspicuous among all orders of men before that period.—Popularity began then to be courted; ambitious men, finding themselves not possessed of that merit which ensured them success with the virtuous senate, amused the mob with artful and seditious harangues; and by making them believe that they were possessed of all power, and had their sacred rights encroached upon by the senate, led them about at their pleasure, and got themselves exalted to honours and riches by these insidious arts. It was then the Romans first began to perceive the use to which a command of language could be put. Ambitious men then studied it with care, to be able to accomplish their ends; while the more virtuous were obliged to acquire a skill in this, that they might be able to repel the attacks of their adversaries.—Thus it happened, that in a short time that people from having entirely neglected, began to study their language with the greatest assiduity; and as Greece happened to be subjected to the Roman yoke about that time, and a friendly intercourse was established between these two countries, this greatly conspired to nourish in the minds of the Romans a taste for that art of which they had lately become so much enamoured. Greece had long before this period been corrupted by luxury; their taste for the fine arts had degenerated into unnecessary refinement; and all their patriotism consisted in popular harangues and unmeaning declamation. Oratory was then studied as a refined art; and all the subtleties of it were taught by rule, with as great care as the gladiators were afterwards trained up in Rome. But while they were thus idly trying who should be the lord of their own people, the nerves of government were relaxed, and they became an easy prey to every invading power. In this situation they became the *subjects*, under the title of the *allies*, of Rome, and introduced among them the same taste for haranguing which prevailed among themselves. Well acquainted as they were with the powers of their own language, they set themselves with unwearied assiduity to polish and improve that of their new masters: but with all their assiduity and pains, they never were able to make it arrive at that perfection which their own language had acquired; and in the Augustan age, when it had arrived at the summit of its glory, Cicero bitterly complains of its want of copiousness in many particulars.

30 It could not be carried to the same degree of perfection.

But as it was the desire of all who studied this language with care, to make it capable of that stately dignity and pomp necessary for public harangues, they followed the genius of the language in this particular, and in a great measure neglected those lesser delicacies which form the pleasure of domestic enjoyment; so that, while it acquired more copiousness, more harmony, and precision, it remained stiff and inflexible for conversation: nor could the minute distinction of nice grammatical rules be ever brought down to the apprehension of the vulgar: whence the language spoken among the lower class of people remained rude and unpolished even to the end of the monarchy. The

Language. Huns who overran Italy, incapable of acquiring any knowledge of such a difficult and abstruse language, never adopted it; and the native inhabitants being made acquainted with a language more natural and easily acquired, quickly adopted that idiom of speech introduced by their conquerors, although they still retained many of those words which the confined nature of the barbarian language made necessary to allow them to express their ideas.—And thus it was that the language of Rome, that proud mistress of the world, from an original defect in its formation, although it had been carried to a perfection in other respects far superior to any northern language at that time, easily gave way to them, and in a few ages the knowledge of it was lost among mankind: while, on the contrary, the more easy nature of the Greek language has still been able to keep some slight footing in the world, although the nations in which it has been spoken have been subjected to the yoke of foreign dominion for upwards of two thousand years, and their country has been twice ravaged by barbarous nations, and more cruelly depressed than ever the Romans were.

From the view which we have already given of the Latin language, it appears evident, that its idiom was more strictly transpositive than that of any other language yet known, and was attended with all the defects to which that idiom is naturally subjected: nor could it boast of such favourable alleviating circumstances as the Greek, the prevailing sounds of the Latin being far less harmonious to the ear; and although the formation of the words is such as to admit of full and distinct sounds, and the words are so modulated as to lay no restraint upon the voice of the speaker; yet, to a person unacquainted with the language, they do not convey that enchanting harmony so remarkable in the Greek language. The Latin is stately and solemn; it does not excite disgust; but at the same time it does not charm the ear, so as to make it listen with delightful attention. To one acquainted with the language, indeed, the nervous boldness of the thoughts, the harmonious rounding of the periods, the full solemn swelling of the sounds, so distinguishable in the most eminent writers in that language which have been preserved to us, all conspire to make it pleasant and agreeable.—In these admired works we meet with all its beauties, without perceiving any of its defects; and we naturally admire, as perfect, a language which is capable of producing such excellent works.—Yet with all these seeming excellencies, this language is less copious and more limited in its style of composition, than many modern languages; far less capable of precision and accuracy than almost any of these; and infinitely behind them all in point of easiness in conversation. But these points have been so fully proved already, as to require no further illustration.—Of the compositions in that language which have been preserved to us, the *Orations* of Cicero are best adapted to the genius of the language, and we there see it in its utmost perfection. In the *Philosophical Works* of that great author we perceive some of its defects; and it requires all the powers of that great man to render his *Epistles* agreeable, as these have the genius of the language to struggle with. Next to oratory, history agrees with the genius of this language; and Cæsar, in his Commentaries, has exhibited the language in its purest elegance, without the aid of pomp or foreign ornament.——Among the poets, Virgil has best adapted his works to his language. The flowing harmony and pomp of it is well adapted for the epic strain, and the correct delicacy of his taste rendered him perfectly equal to the task. But Horace is the only poet whose force of genius was able to overcome the bars which the language threw in his way, and succeed in lyric poetry. Were it not for the brilliancy of the thoughts, and acuteness of the remarks, which so eminently distinguish this author's compositions, his odes would long ere now have sunk into utter oblivion. But so conscious have all the Roman poets been of the unfitness of their language for easy dialogue, that almost none of them, after Plautus and Terence, have attempted any dramatic compositions in that language. Nor have we any reason to regret that they neglected this branch of poetry, as it is probable, if they had ever become fond of these, they would have been obliged to adopt so many unnatural contrivances to render them agreeable, as would have prevented us (who of course would have considered ourselves as bound to follow them) from making that progress in the drama which so particularly distinguishes the productions of modern times. Language.

31 The Italian language of Gothic idiom, and

The modern *Italian* language, from an inattention too common in literary subjects, has been usually called a *child of the Latin language*, and is commonly believed to be the ancient Latin, a little debased by the mixture of the barbarous language of those people who conquered Italy. The truth is, the case is directly the reverse: for this language, in its general idiom and fundamental principles, is evidently of the analogous kind, first introduced by those fierce invaders, although it has borrowed many of its words, and some of its modes of phraseology, from the Latin, with which they were so intimately blended that they could scarcely be avoided; and it has been from remarking this slight connexion, so obvious at first sight, that superficial observers have been led to draw this general conclusion, so contrary to fact.

When Italy was overrun by the Lombards, and the empire destroyed by these northern invaders, they, as conquerors, continued to speak their own native language. Fierce and illiterate, they would not stoop to the servility of studying a language so clogged with rules, and difficult of attainment, as the Latin would naturally be to a people altogether unacquainted with nice grammatical distinctions: while the Romans, of necessity, were obliged to study the language of their conquerors, as well to obtain some relief of their grievances by prayers and supplications, as to destroy that odious distinction which subsisted between the conquerors and conquered, while they continued as distinct people. As the language of their new masters, although rude and confined, was natural in its order, and easy to be acquired, the Latins would soon attain a competent skill in it: and as they bore such a proportion to the whole number of people, the whole language would partake somewhat of the general sound of the former; for, in spite of all their efforts to the contrary, the organs of speech could not at once be made to acquire a perfect power of uttering any unaccustomed sounds; and as it behoved the language of the barbarians to be much less copious than the Latin, whenever

Language.

they found themselves at a loss for a word, they would naturally adopt those which most readily presented themselves from their new subjects. Thus a language in time was formed, somewhat resembling the Latin both in the general tenor of the sounds and in the meaning of many words: and as the barbarians gave themselves little trouble about language, and in some cases perhaps hardly knew the general analogy of their own language, it is not surprising if their new subjects should find themselves sometimes at a loss on that account; or if, in these situations, they followed, on some occasions, the analogy suggested to them by their own: which accounts for the strange degree of mixture of heterogeneous grammatical analogy we meet with in the Italian as well as Spanish and French languages. The idiom of all the Gothic languages is purely analogous; and in all probability, before their mixture with the Latins and other people in their provinces, the several grammatical parts of speech followed the plain simple idea which that supposes, the verbs and nouns were all probably varied by auxiliaries, and their adjectives retained their simple unalterable state:—but by their mixture with the Latins, this simple form has been in many cases altered: their verbs become in some cases inflected; but their nouns in all these languages still retained their original form; although they have varied their adjectives, and foolishly clogged their nouns with gender, according to the Latin idioms. From this heterogeneous and fortuitous (as we may say, because injudicious) mixture of parts, results a language possessing almost all the defects of each of the languages of which it is composed, with few of the excellencies of either: for it has neither the ease and precision of the *analogous*, nor the pomp and boldness of the *transpositive*, languages; at the same time that it is clogged with almost as many rules, and liable to as great abuses.

32 of Latin sound.

33 Has the defects of both its parent tongues.

These observations are equally applicable to the French and Spanish as to the Italian language. With regard to this last, in particular, we may observe, that as the natural inhabitants of Italy, before the last invasion of the barbarians, were sunk and enervated by luxury, and by that depression of mind and genius which anarchy always produces, they had become fond of feasting and entertainments, and the enjoyment of sensual pleasures constituted their highest delight; and their language partook of the same debility as their body.—The barbarians too, unaccustomed to the seductions of pleasure, soon fell from their original boldness and intrepidity, and, like Hannibal's troops of old, were enervated by the sensual gratifications in which a nation of conquerors unaccustomed to the restraint of government freely indulged. The softness of the air, the fertility of the climate, the unaccustomed flow of riches which they at once acquired, together with the voluptuous manner of their conquered subjects; all conspired to enervate their minds, and render them soft and effeminate. No wonder then, if a language new-moulded at this juncture should partake of the genius of the people who formed it; and instead of participating of the martial boldness and ferocity of either of their ancestors, should be softened and enfeebled by every device which an effeminate people could invent.—The strong consonants which terminated the words, and gave them life and boldness, being thought too harsh for the delicate ears of these sons of sloth, were banished their language; while sonorous vowels, which could be protracted to any length in music, were substituted in their stead.—Thus the Italian language is formed flowing and harmonious, but destitute of those nerves which constitute the strength and vigour of a language: at the same time, the sounds are neither enough diversified, nor in themselves of such an agreeable tone, as to afford great pleasure without the aid of musical notes; and the small pleasure which this affords is still lessened by the little variety of measure which the great similarity of the terminations of the words occasions. Hence it happens that the language is fitted for excelling in fewer branches of literature than almost any other: and although we have excellent historians, and more than ordinary poets, in Italian, yet they labour under great inconveniences from the language wanting nerves and stateliness for the former, and sufficient variety of modulation for the latter. It is, more particularly on this account, altogether unfit for an epic poem: and though attempts have been made in this way by two men, whose genius, if not fettered by the language, might have been crowned with success; yet these, notwithstanding the fame that with some they may have acquired, must, in point of poetic harmony, be deemed defective by every impartial person. Nor is it possible that a language which hardly admits of poetry without rhime, can ever be capable of producing a perfect poem of great length; and the stanza to which their poets have ever confined themselves, must always produce the most disagreeable effect in a poem where unrestrained pomp and pathos are necessary qualifications. The only species of poetry in which the Italian language can claim a superior excellence, is the tender tone of elegy: and here it remains unrivalled and alone; the plaintive melody of the sounds, and smooth flow of the language, being perfectly adapted to express that soothing melancholy which this species of poetry requires. On this account the plaintive scenes of the *Pastor Fido* of *Guarini* have justly gained to that poem an universal applause; although, unless on this account alone, it is perhaps inferior to almost every other poem of the kind which ever appeared.—We must observe with surprise, that the Italians, who have fettered every other species of poetry with the severest shackles of rhime, have in this species showed an example of the most unrestrained freedom; the happy effects of which ought to have taught all Europe the powerful charms attending it: yet with amazement we perceive, that scarce an attempt to imitate them has been made by any poet in Europe except by Milton in his Lycidas; no dramatic poet, even in Britain, having ever adopted the unrestrained harmony of numbers to be met with in this and many other of their best dramatic compositions.

Language

34 And though flowing and harmonious, is too feeble for the highest species of composition.

35 The excellency of the Spanish tongue.

Of all the languages which sprung up from the mixture of the Latins with the northern people on the destruction of the Roman empire, none approach so near to the genius of the Latin as the Spanish does.—For as the Spaniards have been always remarkable for their military prowess and dignity of mind, their language is naturally adapted to express ideas of that kind. Sonorous and solemn, it admits nearly

of

Language. of as much dignity as the Latin. For conversation, it is the most elegant and courteous language in Europe.

The humane and generous order of chivalry was first invented, and kept its footing longest, in this nation; and although it ran at last into such a ridiculous excess as deservedly made it fall into universal disrepute, yet it left such a strong tincture of romantic heroism upon the minds of all ranks of people, as made them jealous of their glory, and strongly emulous of cultivating that heroic politeness, which they considered as the highest perfection they could attain. Every man disdained to flatter, or to yield up any point of honour which he possessed; at the same time, he rigorously exacted from others all that was his due.—These circumstances have given rise to a great many terms of respect and courteous condescension, without meanness or flattery, which gave their dialogue a respectful politeness and elegance unknown to any other European language. This is the reason why the characters so finely drawn by Cervantes in Don Quixote are still unknown to all but those who understand the language in which he wrote. Nothing can be more unlike the gentle meekness and humane heroism of the knight, or the native simplicity, warmth of affection, and respectful loquacity of the squire, than the inconsistent follies of the one, or the impertinent forwardness and disrespectful petulance of the other, as they are exhibited in every English translation. Nor is it, as we imagine, possible to represent so much familiarity, united with such becoming condescension in the one, and unfeigned deference in the other, in any other European language, as is necessary to paint these two admirable characters.

Although this language, from the solemn dignity and majestic elegance of its structure, is perhaps better qualified than any other modern one for the sublime strains of epic poetry; yet as the poets of this nation have all along imitated the Italians by a most servile subjection to rhime, they never have produced one poem of this sort, which in point of poesy or style deserves to be transmitted to posterity. And in any other species of poetry but this, or the higher tragedy, it is not naturally fitted to excel. But although the drama and other polite branches of literature were early cultivated in this country, and made considerable progress in it, before the thirst of gain debased their souls, or the desire of universal dominion made them forfeit that liberty which they once so much prized; since they became enervated by an overbearing pride, and their minds enslaved by superstition, all the polite arts have been neglected: so that, while other European nations have been advancing in knowledge, and improving their language, they have remained in a state of torpid inactivity; and their language has not arrived at that perfection which its nature would admit, or the acute genius of the people might have made us naturally expect.

36 The French language deficient in dignity and energy; but

It will perhaps by some be thought an unpardonable insult, if we do not allow the French the preference of all modern languages in many respects. But so far must we pay a deference to truth, as to be obliged to rank it among the poorest languages in Europe. Every other language has some sounds which can be uttered clearly by the voice: even the Italian, although it wants energy, still possesses distinctness of articulation. But the French is almost incapable of either of these beauties; for in that language the vowels are so much curtailed in the pronunciation, and the words run into one another in such a manner as necessarily to produce an indistinctness which renders it incapable of measure or harmony. From this cause, it is in a great measure incapable of poetic modulation; and rhime has been obliged to be substituted in its stead; so that this poorest of all contrivances which has ever yet been invented to distinguish poetry from prose, admitted into all the modern languages when ignorance prevailed over Europe, has still kept some footing in the greatest part of these, rather through a deference for established customs than from any necessity. Yet as the French language admits of so little poetic modulation, rhime is in some measure *necessary* to it; and therefore this poor deviation from prose has been adopted by it, and dignified with the name of *Poetry*. But by their blind attachment to this artifice, the French have neglected to improve, so much as they might have done, the small powers for harmony of which their language is possessed; and by being long accustomed to this false taste, they have become fond of it to such a ridiculous excess, as to have all their tragedies, nay even their comedies, in rhime. While the poet is obliged to enervate his language, and check the flow of composition, for the sake of linking his lines together, the judicious actor finds more difficulty in destroying the appearance of that measure, and preventing the clinking of the rhimes, than in all the rest of his task.—After this, we will not be surprised to find Voltaire attempt an epic poem in this species of poetry; although the more judicious Fenelon, in his *Telemaque*, had shown to his countrymen the only species of poesy that their language could admit of for any poem which aspired to the dignity of the epic strain.—Madam Deshouliers, in her *Idyllie*, has shown the utmost extent of harmony to which their language can attain in smaller poems: indeed in the tenderness of an elegy, or the gaiety of a song, it may succeed; but it is so destitute of force and energy, that it can never be able to reach the pindaric, or even perhaps the lyric strain,—as the ineffectual efforts even of the harmonious Rousseau, in his translation of the Psalms of David, of this stamp, may fully convince us.

With regard to its powers in other species of composition, the sententious rapidity of Voltaire, and the more nervous dignity of Rousseau, afford us no small presumption, that, in a skilful hand, it might acquire so much force, as to transmit to futurity historical facts in a style not altogether unworthy of the subject. In attempts of pathetic declamation, the superior abilities of the composer may perhaps on some occasions excite a great idea; but this is ever cramped by the genius of the language: and although no nation in Europe can boast of so many orations where this grandeur is attempted; yet perhaps there are few who cannot produce more perfect, although not more laboured, compositions of this kind.

But notwithstanding the French language labours under all these inconveniences; although it can neither equal the dignity or genuine politeness of the Spanish, the nervous boldness of the English, nor the melting softness of the Italian; although it is destitute of

poetic

poetic harmony, and so much cramped in sound as to be absolutely unfit for almost every species of musical composition (F); yet the sprightly genius of that volatile people has been able to surmount all these difficulties, and render it the language most generally esteemed, and most universally spoken, of any in Europe; for this people, naturally gay and loquacious, and fond to excess of those superficial accomplishments which engage the attention of the fair sex, has invented such an infinity of words capable of expressing vague and unmeaning compliment, now dignified by the name of *politeness*, that, in this strain, one who uses the French can never be at a loss; and as it is easy to converse *more*, and really say *less*, in this than in any other language, a man of very moderate talents may distinguish himself much more by using this than any other that has ever yet been invented. On this account, it is peculiarly well adapted to that species of conversation which must ever take place in those general and promiscuous companies, where many persons of both sexes are met together for the purposes of relaxation or amusement; and must of course be naturally admitted into the courts of princes, and assemblies of great personages, who, having fewer equals with whom they can associate, are more under the necessity of conversing with strangers, in whose company the tender stimulus of friendship does not so naturally expand the heart to mutual trust or unrestrained confidence. In these circumstances, as the heart remaineth disengaged, conversation must necessarily flag; and mankind in this situation will gladly adopt that language in which they can converse most easily without being deeply interested. On these accounts the French now is, and probably will continue to be, reckoned the most polite language in Europe, and therefore the most generally studied and known: nor should we envy them this distinction, if our countrymen would not weaken and enervate their own manly language, by adopting too many of their unmeaning phrases.

37 admirably fitted for light conversation.

38 The excellencies and defects of the English tongue.

The English is perhaps possessed of a greater degree of excellence, blended with a greater number of defects, than any of the languages we have hitherto mentioned. As the people of Great Britain are a bold, daring, and impetuous race of men, subject to strong passions, and from the absolute freedom and independence which reigns amongst all ranks of people throughout this happy isle, little solicitous about controlling these passions;—our language takes its strongest characteristical distinction from the genius of the people; and, being bold, daring, and abrupt, is admirably well adapted to express those great emotions which spring up in an intrepid mind at the prospect of interesting events. Peculiarly happy too in the full and open sounds of the vowels, which form the characteristic *tone* of the language, and in the strong use of the aspirate H in almost all those words which are used as exclamations, or marks of strong emotions upon interesting occasions, that particular class of words called *interjections* have, in our language, more of that fulness and unrestrained freedom of tones, in which their chief power consists, and are pushed forth from the inmost recesses of the soul in a more forcible and unrestrained manner, than in any other language whatever. Hence it is more peculiarly adapted for the great and interesting scenes of the *drama* than any language that has yet appeared on the globe. Nor has any other nation ever arrived at that perfection which the English may justly claim in that respect; for however faulty our dramatic compositions may be in some of the critical niceties which relate to this art, —in nervous force of diction, and in the natural expression of those great emotions which constitute its soul and energy, we claim, without dispute, an unrivalled superiority. Our language too, from the great intercourse that we have had with almost all the nations of the globe by means of our extensive commerce, and from the eminent degree of perfection which we have attained in all the arts and sciences, has acquired a copiousness beyond what any other modern language can lay claim to; and even the most partial favourers of the Greek language are forced to acknowledge, that in this respect, it must give place to the English. Nor is it less happy in that facility of construction which renders it more peculiarly adapted to the genius of a free people, than any other form of language. Of an *idiom* purely analogous, it has deviated less from the genius of that *idiom*, and possesses more of the characteristic advantages attending it, than any other language that now exists: for, while *others*, perhaps by their more intimate connexion with the Romans, have adopted some of their transpositions, and clogged their language with unnecessary fetters, *we* have preserved ourselves free from the contagion, and still retain the primitive simplicity of our language. Our

verbs

(F) An author of great discernment, and well acquainted with the French language, has lately made the same remark; and as the loftiness of his genius often prevents him from bringing down his illustrations to the level of ordinary comprehension, he has on this and many other occasions been unjustly accused of being fond of paradoxes.—But as music never produces its full effect but when the tones it assumes are in unison with the idea that the words naturally excite, it of necessity follows, that if the words of any language do not admit of that fulness of sound, or that species of tones, which the passion or affection that may be described by the words would naturally require to excite the same idea in the mind of one who was unacquainted with the language, it will be impossible for the music to produce its full effect, as it will be cramped and confined by the sound of the words;—and as the French language does not admit of those full and open sounds which are necessary for pathetic expression in music, it must of course be unfit for musical composition.—It is true indeed, that in modern times, in which so little attention is bestowed on the simple and sublime charms of pathetic expression, and a fantastical tingling of unmeaning sounds is called *music*—where the sense of the words is lost in fugues, quavers, and unnecessary repetition of particular syllables,—all languages are nearly fitted for it; and among these the French: nor is it less to be doubted, that, in the easy gaiety of a song, this language can properly enough admit of all the musical expression which that species of composition may require.

Language. *verbs* are all varied by auxiliaries (except in the instance we have already given, which is so much in our favour); our *nouns* remain free from the perplexing embarrassment of *genders*, and our pronouns mark this distinction where necessary with the most perfect accuracy; our *articles* also are of course freed from this unnatural encumbrance, and our *adjectives* preserve their natural freedom and independence. From these causes our language follows an order of construction so natural and easy, and the rules of *syntax* are so few and obvious, as to be within the reach of the most ordinary capacity. So that from this, and the great clearness and distinctness of meaning with which this mode of construction is necessarily accompanied, it is much better adapted for the familiar intercourse of private society, and liable to fewer errors in using it, than any other language yet known; and on this account we may boast, that in no nation of Europe do the lower class of people speak their language with so much accuracy, or have their minds so much enlightened by knowledge, as in Great Britain.—— What then shall we say of the discernment of those grammarians, who are every day echoing back to one another complaints of the poverty of our language on account of the few and simple rules which it requires in syntax? As justly might we complain of an invention in mechanics, which, by means of one or two simple movements, obvious to an ordinary capacity, little liable to accidents, and easily put in order by the rudest hand, should possess the whole powers of a complex machine, which had required an infinite apparatus of wheels and contrary movements, the knowledge of which could only be acquired, or the various accidents to which it was exposed by using it be repaired, by the powers of the ingenious artist, as complain of this characteristic excellence of our language as a defect.

But if we thus enjoy in an eminent degree the advantages attending an *analogous* language, we likewise feel in a considerable measure the defects to which it is exposed; as the number of monosyllables with which it always must be embarrassed, notwithstanding the great improvements which have been made in our language since the revival of letters in Europe, prevents in some degree that swelling fulness of sound which so powerfully contributes to harmonious dignity and graceful cadences in literary compositions. And as the genius of the people of Britain has always been more disposed to the rougher arts of command than to the softer insinuations of persuasion, no pains have been taken to correct these natural defects of our language; but, on the contrary, by an inattention, of which we have hardly a parallel in the history of any civilized nation, we meet with many instances, even within this last century, of the harmony of sound being sacrificed to that brevity so desirable in conversation, as many elegant words have been curtailed, and harmonious syllables suppressed, to substitute in their stead others, shorter indeed, but more barbarous and uncouth. Nay, so little attention have our forefathers bestowed upon the harmony of sounds in our language, that one would be tempted to think, on looking back to its primitive state, that they had on some occasions studiously debased it. Our language, at its first formation, seems to have laboured under a capital defect in point of sound, as such a number of S's enter into the formation of our words, and such a number of letters and combinations of other letters assume a similar sound, as to give a general hiss through the whole tenor of our language, which must be exceedingly disagreeable to every unprejudiced ear. We would therefore have naturally expected, that at the revival of letters, when our forefathers became acquainted with the harmonious languages of Greece and Rome, they would have acquired a more correct taste, and endeavoured, if possible, to diminish the prevalence of this disgusting sound. But so far have they been from thinking of this, that they have multiplied this letter exceedingly. The plurals of almost all our nouns were originally formed by adding the harmonious syllable *en* to the singular, which has given place to the letter *s*; and instead of *housen* formerly, we now say *houses*. In like manner, many of the variations of our verbs were formed by the syllable *eth*, which we have likewise changed into the same disagreeable letter; so that, instead of *loveth*, *moveth*, *writeth*, *walketh*, &c. we have changed them into the more modish forms of *loves*, *moves*, *writes*, *walks*, &c. Our very auxiliary verbs have suffered the same change; and instead of *hath* and *doth*, we now make use of *has* and *does*. From these causes, notwithstanding the great improvements which have been made in language, within these few centuries, in other respects; yet, with regard to the pleasingness of sound alone, it was perhaps much more perfect in the days of Chaucer than at present; and although custom may have rendered these sounds so familiar to our ear, as not to affect us much; yet to an unprejudiced person, unacquainted with our language, we have not the smallest doubt but the language of *Bacon* or *Sidney* would appear more harmonious than that of *Robertson* or *Hume*. This is indeed the fundamental defect of our language, and loudly calls for reformation. Language.

But notwithstanding this great and radical defect with regard to pleasingness of sounds, which must be so strongly perceived by every one who is unacquainted with the meaning of our words; yet to those who understand the language, the exceeding copiousness which it allows in the choice of words proper for the occasion, and the nervous force with the perspicuity and graceful elegance the emphasis bestows upon it, make this defect be totally overlooked; and we could produce such numerous works of prose, which excel in almost every different style of composition, as would be tiresome to enumerate: every reader of taste and discernment will be able to recollect a sufficient number of writings which excel in point of style, between the graceful and becoming gravity so conspicuous in all the works of the author of the *Whole duty of Man*, and the animated and nervous diction of Robertson in his history of Charles the Fifth,—the more flowery style of Shaftesbury, or the Attic simplicity and elegance of Addison. But although we can equal, if not surpass, every modern language in works of prose, it is in its poetical powers that our language shines forth with the greatest lustre. The brevity to which we must here necessarily confine ourselves, prevents us from entering into a minute examination of the poetical powers of our own, compared with other languages; otherwise it would be easy to show, that

every

Language. every other modern language labours under great restraints in this respect which ours is freed from;—that our language admits of a greater variety of poetic movements, and diversity of cadence, than any of the admired languages of antiquity; that it distinguishes with the greatest accuracy between accent and quantity, and is possessed of every other poetic excellence which their languages were capable of: so that we are possessed of all the sources of harmony which they could boast; and, besides all these, have one superadded, which is the cause of great variety and more forcible expression in numbers than all the rest; that is, the unlimited power given by the emphasis over quantity and cadence; by means whereof, a necessary union between sound and sense, numbers and meaning, in versification, unknown to the ancients, has been brought about, which gives our language in this respect a superiority over all those justly admired languages. But as we cannot here further pursue this subject, we shall only observe, that these great and distinguishing excellencies far more than counterbalance the inconveniences that we have already mentioned: and although, in mere pleasantness of sounds, or harmonious flow of syllables, our language may be inferior to the Greek, the Latin, Italian, and Spanish; yet in point of manly dignity, graceful variety, intuitive distinctness, nervous energy of expression, unconstrained freedom and harmony of poetic numbers, it will yield the palm to none. Our immortal Milton, slowly rising in graceful majesty, stands up as equal, if not superior, in these respects, to any poet, in any other language that ever yet existed;—while Thomson, with more humble aim, in melody more smooth and flowing, softens the soul to harmony and peace:—the plaintive moan of Hammond calls forth the tender tear and sympathetic sigh; while Gray's more soothing melancholy fixes the sober mind to silent contemplation:—more tender still than these, the amiable Shenstone comes; and from his Doric reed, still free from courtly affectation, flows a strain so pure, so simple, and of such tender harmony, as even Arcadian shepherds would be proud to own. But far before the rest, the daring Shakespeare steps forth conspicuous, clothed in native dignity; and pressing forward with unremitting ardour, boldly lays claim to both dramatic crowns held out to him by Thalia and Melpomene:—his rivals, far behind, look up, and envy him for these unfading glories; and the astonished nations round, with distant awe, behold and tremble at his daring flight.——Thus the language, equally obedient to all, bends with ease under their hands, whatever form they would have it assume; and, like the yielding wax, readily receives, and faithfully transmits to posterity, those impressions which they have stamped upon it.

Such are the principal outlines of the language of Great Britain, such are its beauties, and such its most capital defects; a language more peculiarly circumstanced than any that has ever yet appeared.—It is the language of a great and powerful nation, whose fleets surround the globe, and whose merchants are in every port: a people admired or revered by all the world:—and yet it is less known in every foreign country than many of the other languages in Europe. In it are written more perfect treatises on every art and science than are to be found in any other language;— Language. yet it is less sought after or esteemed by the literati in any part of the globe than almost any of these. Its superior powers for every purpose of language are sufficiently obvious from the models of perfection in almost every particular which can be produced in it:—yet it is neglected, despised, and vilified by the people who use it; and many of those authors who owe almost the whole of their fame to the excellence of the language in which they wrote, look upon that very language with the highest contempt. Neglected and despised, it has been trodden under foot as a thing altogether unworthy of cultivation or attention. Yet in spite of all these inconveniences, in spite of the many wounds it has thus received, it still holds up its head, and preserves evident marks of that comeliness and vigour which are its characteristical distinction. Like a healthy oak planted in a rich and fertile soil, it has sprung up with vigour: and although neglected, and suffered to be overrun with weeds; although exposed to every blast, and unprotected from every violence: it still beareth up under all these inconveniences, and shoots up with a robust healthiness and wild luxuriance of growth. Should this plant, so sound and vigorous, be now cleared from these weeds with which it has been so much encumbered;—should every obstacle which now buries it under thick shades, and hides it from the view of every passenger, be cleared away;—should the soil be cultivated with care, and a strong fence be placed around it, to prevent the idle or the wicked from breaking or distorting its branches;—who can tell with what additional vigour it would flourish, or what amazing magnitude and perfection it might at last attain!—How would the astonished world behold, with reverential awe, the majestic gracefulness of that object which they so lately despised!

Beauty of LANGUAGE *considered in regard to Composition.* The beauties of language may be divided into three classes: 1. Those which arise from sound; 2. Those which respect significance; 3. Those derived from a resemblance between sound and signification.

I. *With respect to sound.* In a cursory view, you would imagine, that the agreeableness or disagreeableness of a word with respect to sound, should depend upon the agreeableness or disagreeableness of its component syllables: which is true in part, but not entirely: for we must also take under consideration the effect of syllables in succession. In the first place, Syllables in immediate succession, pronounced each of them with the same, or nearly the same, aperture of the mouth, produce a succession of weak and feeble sounds; witness the French words *dit il, pathetique:* on the other hand, a syllable of the greatest aperture succeeding one of the smallest, or the contrary, makes a succession which, because of its remarkable disagreeableness, is distinguished by a proper name, viz. *hiatus.* The most agreeable succession is, where the cavity is increased and diminished alternately, within moderate limits: examples, *Alternative, longevity, pusillanimous.* Secondly, words consisting wholly of syllables pronounced slow, or of syllables pronounced quick, commonly called *long* and *short syllables*, have little melody in them; witness the words *petitioner, fruiterer, dizziness;* on the other hand, the intermixture of long and short syllables is remarkably agree- *Elements of Criticism.*

able;

Language. able; for example, *degree*, *repent*, *wonderful*, *altitude*, *rapidity*, *independent*, *impetuosity*; the cause of which is explained in POETRY, Part II.

To proceed to the music of periods. As the arrangement of words in succession, so as to afford the greatest pleasure to the ear, depends on principles remote from common view, it will be necessary to premise some general observations upon the appearance that objects make when placed in an increasing or decreasing series; which appearance will vary according to the prevalence of resemblance or of contrast. Where the objects vary by small differences so as to have a mutual resemblance, we in ascending conceive the second object of no greater size than the first, the third of no greater size than the second, and so of the rest; which diminisheth in appearance the size of every object except the first: but when beginning at the greatest object, we proceed gradually to the least, resemblance makes us imagine the second as great as the first, and the third as great as the second; which in appearance magnifies every object except the first. On the other hand, in a series varying by large differences, where contrast prevails, the effects are directly opposite: a great object succeeding a small one of the same kind, appears greater than usual; and a little object succeeding one that is great, appears less than usual *. Hence a remarkable pleasure in viewing a series ascending by large differences; directly opposite to what we feel when the differences are small. The least object of a series ascending by large differences has the same effect upon the mind as if it stood single without making a part of the series: but the second object, by means of contrast, appears greater than when viewed singly and apart; and the effect is perceived in ascending progressively, till we arrive at the last object. The opposite effect is produced in descending; for in this direction, every object, except the first, appears less than when viewed separately and independent of the series. We may then assume as a maxim, which will hold in the composition of language as well as of other subjects, That a strong impulse succeeding a weak, makes a double impression on the mind; and that a weak impulse succeeding a strong, makes scarce any impression.

* See *Resemblance*.

After establishing this maxim, we can be at no loss about its application to the subject in hand. The following rule is laid down by Diomedes†. "In verbis observandum est, ne à majoribus ad minora descendat oratio; melius enim dicitur, *Vir est optimus*, quam, *Vir optimus est*." This rule is also applicable to entire members of a period, which, according to our author's expression, ought not, more than single words, to proceed from the greater to the less, but from the less to the greater. In arranging the members of a period, no writer equals Cicero: The following examples are too beautiful to be slurred over by a reference.

† *De struct. perfectæ orat.* lib. ii.

Quicum quæstor fueram,
Quicum me sors consuetudoque majorum,
Quicum me deorum hominumque judicium conjunxerat.

Again:

Habet honorem quem petimus,
Habet spem quam præpositam nobis habemus,
Habet existimationem, multo sudore, labore, vigiliisque collectam.

Language.

Again:

Eripite nos ex miseriis,
Eripite nos ex faucibus eorum,
Quorum crudelitas nostro sanguine non potest expleri.
De Oratore, lib. i. § 52.

This order of words or members gradually increasing in length, may, so far as concerns the pleasure of sound, be denominated *a climax in sound*.

With respect to the music of periods as united in a discourse, this depends chiefly on variety. Hence a rule for arranging the members of different periods with relation to each other; That to avoid a tedious uniformity of sound and cadence, the arrangement, the cadence, and the length of the members, ought to be diversified as much as possible: and if the members of different periods be sufficiently diversified, the periods themselves will be equally so.

II. *With respect to signification.* The beauties of language with respect to signification, may not improperly be distinguished into two kinds: first, the beauties that arise from a right choice of words or materials for constructing the period; and next, the beauties that arise from a due arrangement of these words or materials.

1. Communication of thought being the chief end of language, it is a rule, That perspicuity ought not to be sacrificed to any other beauty whatever. Nothing, therefore, in language ought more to be studied, than to prevent all obscurity in the expression; for to have no meaning, is but one degree worse than to have a meaning that is not understood. We shall here give a few examples where the obscurity arises from a wrong choice of words.

Livy, speaking of a rout after a battle, "Multique in ruina *majore* quam fuga oppressi obtruncatique." This author is frequently obscure by expressing but part of his thought, leaving it to be completed by his reader. His description of the sea fight, lib. 28. cap. 30. is extremely perplexed.

Unde tibi reditum *certo subtemine* Parcæ
Rupere. HORAT.

Qui persæpe cava testudine flevit amorem,
Non elaboratum ad pedem. *Id.*

Me fabulosæ Vulture in Appulo,
Altricis extra limen Apuliæ,
Ludo, fatigatumque *somno*,
Fronde nova puerum palumbes
Texere. *Id.*

Puræ rivus aquæ, silvaque jugerum
Paucorum, et segetis certa fides meæ,
Fulgentem imperio fertilis Africæ
Fallit sorte beatior. *Id.*

Cum fas atque nefas exiguo *fine* libidinum
Discernunt avidi. *Id.*

Ac spem fronte serenat. VIRG.

The rule next in order is, That the language ought

Language. to correspond to the subject: heroic actions or sentiments require elevated language; tender sentiments ought to be expressed in words soft and flowing; and plain language, void of ornament, is adapted to subjects grave and didactic. Language may be considered as the dress of thought; and where the one is not suited to the other, we are sensible of incongruity, in the same manner as where a judge is dressed like a fop, or a peasant like a man of quality. Where the impression made by the words resembles the impression made by the thought, the similar emotions mix sweetly in the mind, and double the pleasure; but where the impressions made by the thought and the words are dissimilar, the unnatural union they are forced into is disagreeable.

This concordance between the thought and the word has been observed by every critic, and is so well understood as not to require any illustration. But there is a concordance of a peculiar kind that has scarcely been touched in works of criticism, though it contributes to neatness of composition. It is what follows.

In a thought of any extent we commonly find some parts intimately united, some slightly, some disjoined, and some directly opposite to each other. To find these conjunctions and disjunctions imitated in the expression, is a beauty; because such imitation makes the words concordant with the sense. This doctrine may be illustrated by a familiar example: When we have occasion to mention the intimate connexion that the soul hath with the body, the expression ought to be, *the soul and body;* because the article *the*, relative to both, makes a connexion in the expression, resembling in some degree the connexion in the thought; but when the soul is distinguished from the body, it is better to say *the soul and the body;* because the disjunction in the words resembles the disjunction in the thought. We proceed to other examples, beginning with conjunctions.

"Constituit agmen; et expedire tela animosque, equitibus jussis," &c. *Livy*, lib. 38. § 25. Here the words that express the connected ideas are artificially connected by subjecting them both to the regimen of one verb. And the two following are of the same kind.

"Quum ex paucis quotidie aliqui eorum caderent aut vulnerarentur, et qui superarent, fessi et corporibus et animis essent," &c. *Ibid.* § 29.

Post acer Mnestheus adducto constitit arcu,
Alta petens, pariterque oculos telumque tetendit.
Æneid, v. 507.

But to justify this artificial connexion among the words, the ideas they express ought to be intimately connected; for otherwise that concordance which is required between the sense and the expression will be impaired. In that view, the following passage from Tacitus is exceptionable; where words that signify ideas very little connected, are however forced into an artificial union. "Germania omnis à Gallis, Rhætiisque, et Pannoniis, Rheno et Danubio fluminibus; à Sarmatis Dacisque, mutuo metu aut montibus separatur."

Upon the same account, the following passage seems equally exceptionable.

——————The fiend look'd up, and knew Language.
His mounted scale aloft; nor more, but fled
Murm'ring, and with him fled the shades of night.
Paradise Lost, book iv. *at the end.*

There is no natural connection between a person's flying or retiring, and the succession of daylight to darkness; and therefore to connect artificially the terms that signify these things cannot have a sweet effect.

Two members of a thought connected by their relation to the same action, will naturally be expressed by two members of the period governed by the same verb; in which case these members, in order to improve their connection, ought to be constructed in the same manner. This beauty is so common among good writers as to have been little attended to; but the neglect of it is remarkably disagreeable: for example, "He did not mention Leonora, nor that her father was dead." Better thus: "He did not mention Leonora, nor her father's death."

Where two ideas are so connected as to require but a copulative, it is pleasant to find a connexion in the words that express their ideas, were it even so slight as where both begin with the same letter. Thus,

"The peacock, in all his pride, does not display half the colour that appears in the garments of a British lady, when she is either dressed for a ball or a birthday." *Spect.*

"Had not my dog of a steward run away as he did, without making up his accounts, I had still been immersed in sin and sea-coal." *Ib.*

My life's companion, and my bosom friend,
One faith, one fame, one fate shall both attend.
DRYDEN, *Translation of Æneid.*

Next, as to examples of disjunction and opposition in the parts of the thought, imitated in the expression; an imitation that is distinguished by the name of *antithesis.*

Speaking of Coriolanus soliciting the people to be made consul:

With a proud heart he wore his humble weeds.
Coriolanus.

"Had you rather Cæsar were living, and die all slaves, than that Cæsar were dead, to live all free men?"
Julius Cæsar.

He hath cool'd my friends and heated mine enemies.
SHAKESPEARE.

An artificial connection among the words, is undoubtedly a beauty when it represents any peculiar connection among the constituent parts of the thought; but where there is no such connection, it is a positive deformity, because it makes a discordance between the thought and expression. For the same reason, we ought also to avoid every artificial opposition of words where there is none in the thought. This last, termed *verbal antithesis*, is studied by low writers, because of a certain degree of liveliness in it. They do not consider how incongruous it is, in a grave composition, to cheat the reader, and to make him expect a contrast in the thought, which upon examination is not found there.

Language. A fault directly opposite to the last mentioned, is to conjoin artificially words that express ideas opposed to each other. This is a fault too gross to be in common practice; and yet writers are guilty of it in some degree, when they conjoin by a copulative things transacted at different periods of time. Hence a want of neatness in the following expression: "The nobility too, whom the king had no means of retaining by suitable offices and preferments, had been seized with the general discontent, and unwarily threw themselves into the scale which began already too much to preponderate." *Hume.* In periods of this kind, it appears more neat to express the past time by the participle passive, thus: "The nobility having been seized with the general discontent, unwarily threw themselves," &c. or, "The nobility, who had been seized, &c. unwarily threw themselves," &c.

It is unpleasant to find even a negative and affirmative proposition connected by a copulative:

> If it appear not plain, and prove untrue,
> Deadly divorce step between me and you.
>
> SHAKESPEARE.

In mirth and drollery it may have a good effect to connect verbally things that are opposite to each other in the thought. Example: Henry IV. of France introducing the mareschal Biron to some of his friends, "Here, gentlemen (says he) is the mareschal Biron, whom I freely present both to my friends and enemies."

This rule of studying uniformly between the thought and expression may be extended to the construction of sentences or periods. A sentence or period ought to express one entire thought or mental proposition; and different thoughts ought to be separated in the expression by placing them in different sentences or periods. It is therefore offending against neatness, to crowd into one period entire thoughts requiring more than one; which is joining in language things that are separated in reality. Of errors against this rule take the following examples:

"Behold, thou art fair, my beloved, yea pleasant: also our bed is green."

Burnet, in the history of his own times, giving Lord Sunderland's character, says: "His own notions were always good; but he was a man of great expence."

"I have seen a woman's face break out in heats, as she has been talking against a great lord, whom she had never seen in her life; and indeed never knew a party-woman that kept her beauty for a twelvemonth." *Spect.*

Lord Bolingbroke, speaking of Strada: "I single him out among the moderns, because he had the foolish presumption to censure Tacitus, and to write history himself; and your lordship will forgive this short excursion in honour of a favourite writer."

To crowd into a single member of a period different subjects, is still worse than to crowd them into one period.

> ——————Trojam genitore Adamasto
> Paupere (mansissetque utinam fortuna!) profectus.
>
> *Æneid*, iii. 614.

From conjunctions and disjunctions in general, we proceed to comparisons, which make one species of them, beginning with similes. And here also, the intimate connection that words have with their meaning requires, that in describing two resembling objects, a resemblance in the two members of the period ought to be studied. To begin with examples of resemblances expressed in words that have no resemblance. Language.

"I have observed of late, the style of some great ministers very much to exceed that of any other productions." *Swift.* This, instead of studying the resemblance of words in a period that expresses a comparison, is going out of one's road to avoid it. Instead of *productions*, which resemble not ministers great nor small, the proper word is *writers* or *authors*.

"I cannot but fancy, however, that this imitation, which passes so currently with *other judgments* must at some time or other have stuck a little with your *lordship*." *Shaftesb.* Better thus: "I cannot but fancy, however, that this imitation, which passes so currently with *others*, must at some time or other have stuck a little with your *lordship*."

"A glutton or mere sensualist is as ridiculous as the other two characters." *Id.*

"They wisely prefer *the generous efforts of good will and affection*, to the reluctant compliances *of such as* obey by force." *Bolingb.*

It is a still greater deviation from congruity, to affect not only variety in the words, but also in the construction.

Hume speaking of Shakespeare: "There may remain a suspicion that we overrate the greatness of his genius, in the same manner as bodies appear more gigantic on account of their being disproportioned and mishapen." This is studying variety in a period where the beauty lies in uniformity. Better thus: "There may remain a suspicion that we overrate the greatness of his genius, in the same manner as we overrate the greatness of bodies that are disproportioned and mishapen."

Next of comparison where things are opposed to each other. And here it must be obvious, that if resemblance ought to be studied in the words which express two resembling objects, there is equal reason for studying opposition in the words which express contrasted objects. This rule will be best illustrated by examples of deviations from it.

"A friend exaggerates a man's virtues; an enemy inflames his crimes." *Spect.* Here the opposition in the thought is neglected in the words; which at first view seem to import, that the friend and enemy are employed in different matters, without any relation to each other, whether of resemblance or of opposition. And therefore the contrast or opposition will be better marked by expressing the thought as follows: "A friend exaggerates a man's virtues, an enemy his crimes."

"The wise man is happy when he gains his own approbation; the fool when he recommends himself to the applause of those about him." *Ib.* Better: "The wise man is happy when he gains his own approbation, the fool when he gains that of others."

We proceed to a rule of a different kind. During the course of a period, the scene ought to be continued without variation: the changing from person to person,

Language. from subject to subject, or from person to subject, within the bounds of a single period, distracts the mind, and affords no time for a solid impression.

Hook, in his Roman history, speaking of Eumenes, who had been beat to the ground with a stone, says, "After a short time *he* came to himself; and the next day *they* put him on board his ship, *which* conveyed him first to Corinth, and thence to the island of Ægina."

The following period is unpleasant, even by a very slight deviation from the rule: "That sort of instruction which is acquired by inculcating an important moral truth," &c. This expression includes two persons, one acquiring, and one inculcating; and the scene is changed without necessity. To avoid this blemish, the thought may be expressed thus: "That sort of instruction which is afforded by inculating," &c.

The bad effect of such a change of person is remarkable in the following passage: "The *Britons*, daily harassed by cruel inroads from the Picts, were forced to call in the Saxons for their defence, *who* consequently reduced the greatest part of the island to their own power, drove the Britons into the most remote and mountainous parts, and *the rest of the country*, in customs, religion, and language, became wholly Saxon." *Swift.*

The following passage has a change from subject to person: "*This prostitution of praise* is not only a deceit upon the gross of mankind, who take their notion of characters from the learned; but also *the better sort* must by this means lose some part at least of that desire of fame which is the incentive to generous actions, when they find it promiscuously bestowed on the meritorious and undeserving." *Guardian*, N° 4.

The present head, which relates to the choice of materials, shall be closed with a rule concerning the use of copulatives. Longinus observes, that it animates a period to drop the copulatives; and he gives the following example from Xenophon: "Closing their shields together, they were pushed, they fought, they slew, they were slain." The reason may be what follows. A continued sound, if not loud, tends to lay us asleep: an interrupted sound rouses and animates by its repeated impulses: thus feet composed of syllables, being pronounced with a sensible interval between each, make more lively impressions than can be made by a continued sound. A period of which the members are connected by copulatives, produceth an effect upon the mind approaching to that of a continued sound; and therefore the suppressing copulatives must animate a description. It produces a different effect akin to that mentioned: the members of a period connected by proper copulatives, glide smoothly and gently along; and are a proof of sedateness and leisure in the speaker: on the other hand, one in the hurry of passion, neglecting copulatives and other particles, expresses the principal image only; and for that reason, hurry or quick action is best expressed without copulatives:

Veni, vidi, vici.

——————————Ite:
Ferte citò flammas, date vela, impellite remos.
Æneid, iv. 593.

Quis globus, O cives, caligine volvitur atra? Language.
Ferte citò ferrum, date tela, scandite muros.
Hostis adest, eja. *Æneid*, ix. 37.

In this view Longinus justly compares copulatives in a period to strait tying, which in a race obstructs the freedom of motion.

It follows, that a plurality of copulatives in the same period ought to be avoided; for if the laying aside copulatives give force and liveliness, a redundancy of them must render the period languid. The following instance may be appealed to, though there are but two copulatives: "Upon looking over the letters of my female correspondents, I find several from women complaining of jealous husbands; and at the same time protesting their own innocence, and desiring my advice upon this occasion." *Spect.*

Where the words are intended to express the coldness of the speaker, there indeed the redundancy of copulatives is a beauty:

'Dining one day at an alderman's in the city, Peter 'observed him expatiating after the manner of his bre-'thren in the praises of his surloin of beef. "Beef "(said the sage magistrate) is the king of meat: beef "comprehends in it the quintessence of partridge, and "quail, and venison, and pheasant, and plum pudding, "and custard." *Tale of a Tub*, § 4. And the author shows great delicacy of taste by varying the expression in the mouth of Peter, who is represented more animated: "Bread (says he), dear brothers, is the staff "of life; in which bread is contained, *inclusive*, the "quintessence of beef, mutton, veal, venison, partridge, "plum pudding, and custard."

Another case must also be excepted. Copulatives have a good effect where the intention is to give an impression of a great multitude consisting of many divisions, for example: 'The army was composed of Grecians, and Carians, and Lycians, and Pampbylians, and Phrygians.' The reason is, that a leisurely survey, which is expressed by the copulatives, makes the parts appear more numerous than they would do by a hasty survey: in the latter case, the army appears in one group; in the former, we take as it were an accurate survey of each nation, and of each division.

2. To pave the way for the rules of arrangement, it will here be necessary to explain the difference between a natural style and that where transposition or inversion prevails. In a natural style, relative words are by juxtaposition connected with those to which they relate, going before or after, according to the peculiar genius of the language. Again, a circumstance connected by a preposition, follows naturally the word with which it is connected. But this arrangement may be varied, when a different order is more beautiful: a circumstance may be placed before the word with which it is connected by a preposition; and may be interjected even between a relative word and that to which it relates. When such liberties are frequently taken, the style becomes inverted or transposed.

But as the liberty of inversion is a capital point in the present subject, it will be necessary to examine it more narrowly, and in particular to trace the several degrees in which an inverted style recedes more and more from that which is natural. And first, as to the placing

Language. placing a circumstance before the word with which it is connected, this is the easiest of all inversion, even so easy as to be consistent with a style that is properly termed *natural:* witness the following examples.

"In the sincerity of my heart, I profess, &c.

"By our own ill management, we are brought to so low an ebb of wealth and credit, that," &c.

"On Thursday morning there was little or nothing transacted in Change-alley."

"At St Bride's church in Fleetstreet, Mr Woolston (who wrote against the miracles of our Saviour), in the utmost terrors of conscience, made a public recantation."

The interjecting a circumstance between a relative word and that to which it relates, is more properly termed *inversion;* because, by a disjunction of words intimately connected, it recedes farther from a natural style. But this license has degrees; for the disjunction is more violent in some cases than in others.

In nature, though a subject cannot exist without its qualities, nor a quality without a subject; yet in our conception of these, a material difference may be remarked. We cannot conceive a quality but as belonging to some subject: it makes indeed a part of the idea which is formed of the subject. But the opposite holds not; for though we cannot form a conception of a subject void of all qualities, a partial conception may be formed of it, abstracting from any particular quality: we can, for example, form the idea of a fine Arabian horse without regard to his colour, or of a white horse without regard to his size. Such partial conception of a subject is still more easy with respect to action or motion, which is an occasional attribute only, and has not the same permanency with colour or figure: we cannot form an idea of motion independent of a body; but there is nothing more easy than to form an idea of a body at rest. Hence it appears, that the degree of inversion depends greatly on the order in which the related words are placed: when a substantive occupies the first place, the idea it suggests must subsist in the mind at least for a moment, independent of the relative words afterward introduced; and that moment may without difficulty be prolonged by interjecting a circumstance between the substantive and its connections. This liberty therefore, however frequent, will scarce alone be sufficient to denominate a style *inverted.* The case is very different, where the word that occupies the first place denotes a quality or an action; for as these cannot be conceived without a subject, they cannot without greater violence be separated from the subject that follows; and for that reason, every such separation by means of an interjected circumstance belongs to an inverted style.

To illustrate this doctrine, examples are necessary. In the following, the word first introduced does not imply a relation:

——————Nor Eve to iterate
Her former trespass fear'd.

——————Hunger and thirst at once,
Powerful persuaders, quicken'd at the scent
Of that alluring fruit, urg'd me so keen.—

Moon that now meet'st the orient sun, now fli'st
With the fix'd stars, fix'd in their orb that flies,
And ye five other wand'ring fires that move
In mystic dance, not without song, resound
His praise. Language.

Where the word first introduced imports a relation, the disjunction will be found more violent:

Of man's first disobedience, and the fruit
Of that forbidden tree, whose mortal taste
Brought death into the world, and all our wo,
With loss of Eden, till one greater Man
Restore us, and regain the blissful seat,
Sing heav'nly muse.

——————Upon the firm opacous globe
Of this round world, whose first convex divides
The luminous inferior orbs enclos'd
From chaos and th' inroad of darkness old,
Satan alighted walks.

——————On a sudden open fly,
With impetuous recoil and jarring sound,
Th' infernal doors.

——————Wherein remain'd,
For what could else? to our almighty foe
Clear victory, to our part loss and rout.

Language would have no great power, were it confined to the natural order of ideas: By inversion a thousand beauties may be compassed, which must be relinquished in a natural arrangement.

Rules. 1. In the arrangement of a period, as well as in a right choice of words, the first and great object being perspicuity, the rule above laid down, that perspicuity ought not to be sacrificed to any other beauty, holds equally in both. Ambiguities occasioned by a wrong arrangement are of two sorts; the one where the arrangement leads to a wrong sense, and the other where the sense is less doubtful. The first, being the more culpable, shall take the lead, beginning with examples of words put in a wrong place.

"How much the imagination of such a presence must exalt a genius, we may observe *merely* from the influence which an ordinary presence has over men." *Shaftesb.* The arrangement leads to a wrong sense: The adverb *merely* seems by its position to affect the preceding word; whereas it is intended to affect the following words, *an ordinary presence;* and therefore the arrangement ought to be thus: "How much the imagination of such a presence must exalt a genius, we may observe from the influence which an ordinary presence merely has over men." [Or better], "which even an ordinary presence has over men."

"Sixtus the Fourth was, if I mistake not, a great collector of books at least." *Boling.* The expression here leads evidently to a wrong sense; the adverb *at least,* ought not to be connected with the substantive *books,* but with *collector,* thus: "Sixtus the Fourth was a great collector at least, of books."

Speaking of Louis XIV. "If he was not the greatest king, he was the best actor of majesty at least that ever filled a throne." *Id.* Better thus: "If he was not the greatest king, he was at least the best actor of majesty," &c. This arrangement removes the wrong sense occasioned by the juxtaposition of *majesty* and *at least.*

The

Language. The following examples are of a wrong arrangement of members.

"I have confined myself to those methods for the advancement of piety, which are in the power of a prince limited like ours by a strict execution of the laws." *Swift.* The structure of this period leads to a meaning which is not the author's, viz. power limited by a strict execution of the laws. That wrong sense is removed by the following arrangement: "I have confined myself to those methods for the advancement of piety, which, by a strict execution of the laws, are in the power of a prince limited like ours."

"This morning, when one of Lady Lizard's daughters was looking over some hoods and ribbands brought by her tirewoman, with great care and diligence, I employed no less in examining the box which contained them." *Guardian.* The wrong sense occasioned by this arrangement, may be easily prevented by varying it thus: "This morning, when, with great care and diligence, one of Lady Lizard's daughters was looking over some hoods and ribbands," &c.

"A great stone that I happened to find after a long search by the sea shore, served me for an anchor." *Swift.* One would think that the search was confined to the sea shore; but as the meaning is, that the great stone was found by the sea shore, the period ought to be arranged thns: "A great stone that, after a long search, I happened to find by the sea shore, served me for an anchor."

Next of a wrong arrangement where the sense is left doubtful; beginning, as in the former sort, with examples of a wrong arrangement of words in a member.

"These forms of conversation *by degrees* multiplied and grew troublesome." *Spect.* Here it is left doubtful whether the modification *by degrees* relates to the preceding member or to what follows: it should be, "These forms of conversation multiplied by degrees."

"Nor does this false modesty expose us *only* to such actions as are indiscreet, but very often to such as are highly criminal." *Spect.* The ambiguity is removed by the following arrangement: Nor does this false modesty expose us to such actions only as are indiscreet," &c.

"The empire of Blefuscu is an island situated to the north-east side of Lilliput, from whence it is parted *only* by a channel of 800 yards wide." *Swift.* The ambiguity may be removed thus:——— "from whence it is parted by a channel of 800 yards wide only."

In the following examples the sense is left doubtful by wrong arrangement of members.

The minister who grows less by his elevation, *like a little statue placed on a mighty pedestal*, will always have his jealousy strong about him." *Bolingb.* Here, so far as can be gathered from the arrangement, it is doubtful, whether the object introduced by way of simile relates to what goes before or to what follows. The ambiguity is removed by the following arrangement. "The minister who, like a little statue placed on a mighty pedestal, grows less by his elevation, will always," &c.

Speaking of the superstitious practice of locking up the room where a person of distinction dies: "The knight, seeing his habitation reduced to so small a compass, and himself in a manner shut out of his own house, *upon the death of his mother*, ordered all the apartments to be flung open, and exorcised by his chaplain." *Spect.* Better thus: "The knight, seeing his habitation reduced to so small a compass, and himself in a manner shut out of his own house, ordered, upon the death of his mother, all the apartments to be flung open.

Speaking of some indecencies in conversation: "As it is impossible for such an irrational way of conversation to last long among a people that make any profession of religion, or show of modesty, *if the country gentlemen get into it*, they will certainly be left in the lurch." *Ib.* The ambiguity vanishes in the following arrangement:———"the country gentlemen, if they get into it, will certainly be left in the lurch."

"And since it is necessary that there should be a perpetual intercourse of buying and selling, and dealing upon credit, *where fraud is permitted or connived at, or hath no law to punish it*, the honest dealer is always undone, and the knave gets the advantage." *Swift.* Better thus: "And since it is necessary that there should be a perpetual intercourse of buying and selling, and dealing upon credit, the honest dealer, where fraud is permitted or connived at, or hath no law to punish it, is always undone, and the knave gets the advantage."

From these examples, the following observation will occur; that a circumstance ought never to be placed between two capital members of a period; for by such situation it must always be doubtful, so far as we gather from the arrangement, to which of the two members it belongs: where it is interjected, as it ought to be, between parts of the member to which it belongs, the ambiguity is removed, and the capital members are kept distinct, which is a great beauty in composition. In general, to preserve members distinct that signify things distinguished in the thought, the best method is, to place first in the consequent member, some word that cannot connect with what precedes it.

If it shall be thought, that the objections here are too scrupulous, and that the defect of perspicuity is easily supplied by accurate punctuation; the answer is, That punctuation may remove an ambiguity, but will never produce that peculiar beauty which is perceived when the sense comes out clearly and distinctly by means of a happy arrangement. Such influence has this beauty, that, by a natural transition of perception, it is communicated to the very sound of the words, so as in appearance to improve the music of the period. But as this curious subject comes in more properly elsewhere, it is sufficient at present to appeal to experience, that a period, so arranged as to bring out the sense clear, seems always more musical than where the sense is left in any degree doubtful.

The next rule is, That words expressing things connected in the thought, ought to be placed as near together as possible. This rule is derived immediately from human nature, prone in every instance to place together things in any manner connected: where things are arranged according to their connexions, we have a sense of order; otherwise we have a sense

of

Language. of disorder, as of things placed by chance: and we naturally place words in the same order in which we would place the things they signify. The bad effect of a violent separation of words or members thus intimately connected, will appear from the following examples.

"For the English are naturally fanciful, and very often disposed, by that gloominess and melancholy of temper which is so frequent in our nation, to many wild notions and visions, to which others are not so liable." *Spect.* Here the verb or assertion is, by a pretty long circumstance, violently separated from the subject to which it refers: this makes a harsh arrangement; the less excusable that the fault is easily prevented by placing the circumstance before the verb, after the following manner? "For the English are naturally fanciful, and by that gloominess and melancholy of temper which is so frequent in our nation, are often disposed to many wild notions, &c.

"From whence we may date likewise the rivalship of the house of France, for we may reckon that of Valois and that of Bourbon as one upon this occasion, and the house of Austria, that continues at this day, and has oft cost so much blood and so much treasure in the course of it." *Bolingbr.*

"It cannot be impertinent or ridiculous therefore in such a country, whatever it might be in the abbot of St Real's, which was Savoy, I think; or, in Peru, under the incas, where Garcilasso de la Vega says it was lawful for none but the nobility to study—for men of all degrees to instruct themselves in those affairs wherein they may he actors, or judgers of those that act, or controllers of those that judge." *Ibid.*

"If Scipio, who was naturally given to women, for which anecdote we have, if I mistake not, the authority of Polybius, as well as some verses of Nevius preserved by Aulus Gellius, had been educated by Olympias at the court of Philip, it is improbable that he would have restored the beautiful Spaniard." *Ibid.*

If any one have a curiosity for more specimens of this kind, they will be found without number in the works of the same author.

A pronoun, which saves the naming a person or thing a second time, ought to be placed as near as possible to the name of that person or thing. This is a branch of the foregoing rule; and with the reason there given, another occurs, viz. That if other ideas intervene, it is difficult to recal the person or thing by reference.

"If I had leave to print the Latin letters transmitted to me from foreign parts, they would fill a volume, and be a full defence against all that Mr Patridge, or his accomplices of the Portugal inquisition, will be ever able to object; *who*, by the way, are the only enemies my predictions have ever met with at home or abroad." Better thus:——"and be a full defence against all that can be objected by Mr Patridge, or his accomplices of the Portugal inquisition; who, by the way, are," &c.

"There being a round million of creatures in human figure, throughout this kingdom, *whose* whole subsistence," &c. *Swift.* Better: "There being, throughout this kingdom, a round million of creatures in human figure, whose whole subsistence, &c.

The following rule depends on the communication of emotions to related objects; a principle in human nature that hath an extensive operation; and we find this operation, even where the objects are not otherwise related than by juxtaposition of the words that express them. Hence, to elevate or depress an object, one method is, to join it in the expression with another that is naturally high or low: witness the following speech of Eumenes to the Roman senate. Language.

"Causam veniendi sibi Romam fuisse, præter cupiditatem visendi *deos hominesque*, quorum beneficio in ea fortuna esset, supra quam ne optare quidem auderet, etiam ut coram moneret senatum ut Persei conatus obviam iret." *Livy.* To join the Romans with the gods in the same enunciation, is an artful stroke of flattery, because it tacitly puts them on a level.

On the other hand, the degrading or vilifying an object, is done successfully by ranking it with one that is really low: "I hope to have this entertainment in readiness for the next winter; and doubt not but it will please more than the opera or puppet show." *Spect.*

"Manifold have been the judgments which Heaven from time to time, for the chastisement of a sinful people, has inflicted upon whole nations. For when the degeneracy becomes common, it is but just the punishment should be general. Of this kind, in our own unfortunate country, was that destructive pestilence, whose mortality was so fatal as to sweep away, if Sir William Petty may be believed, five millions of Christian souls, besides women and Jews." *Arbuthnot.*

"Such also was that dreadful conflagration ensuing in this famous metropolis of London, which consumed, according to the computation of Sir Samuel Moreland, 100,000 houses, not to mention churches and stables." *Ibid.*

"But on condition it might pass into a law, I would gladly exempt both lawyers of all ages, subaltern and field officers, young heirs, dancing masters, pickpockets, and players." *Swift.*

Sooner let earth, air, sea, to chaos fall,
Men, monkeys, lap dogs, parrots, perish all.
Rape of the Lock.

Circumstances in a period resemble small stones in a building, employed to fill up vacuities among those of a larger size. In the arrangement of a period, such under parts crowded together make a poor figure; and never are graceful but when interspersed among the capital parts.

"It is likewise urged, that there are, by computation, in this kingdom, above 10,000 parsons, whose revenues, added to those of my lords the bishops, would suffice to maintain, &c. *Swift.* Here two circumstances, viz. *by computation*, and *in this kingdom*, are crowded together unnecessarily. They make a better appearance separated in the following manner: "It is likewise urged, that in this kingdom there are by computation, above 10,000 parsons," &c.

If there be room for a choice, the sooner a circumstance is introduced, the better; because circumstances are proper for that coolness of mind, with which we begin a period as well as a volume: in the progress the mind warms, and has a greater relish for matters of importance. When a circumstance is placed at the beginning of the period, or near the beginning, the transition from it to the principal subject is agreeable:

Language. it is like ascending, or going upward. On the other hand, to place it late in the period has a bad effect; for after being engaged in the principal subject, one is with reluctance brought down to give attention to a circumstance. Hence evidently the preference of the following arrangement, "Whether in any country a choice altogether unexceptionable has been made, seems doubtful;" before this other, "Whether a choice altogether unexceptionable has in any country been made," &c.

For this reason the following period is exceptionable in point of arrangement. "I have considered formerly, with a good deal of attention, the subject upon which you command me to communicate my thoughts to you." *Boling.* Which, with a slight alteration, may be improved thus: "I have formerly, with a good deal of attention, considered the subject," &c.

Swift, speaking of a virtuous and learned education: "And although they may be, and too often are, drawn by the temptations of youth, and the opportunities of a large fortune, into some irregularities, *when they come forward into the great world;* it is ever with reluctance and compunction of mind, because their bias to virtue still continues." Better: "And although, *when they come forward into the great world*, they may be, and too often," &c.

In arranging a period, it is of importance to determine in what part of it a word makes the greatest figure, whether at the beginning, during the course, or at the close. The breaking silence rouses the attention, and prepares for a deep impression at the beginning: the beginning, however, must yield to the close; which being succeeded by a pause, affords time for a word to make its deepest impression. Hence the following rule, That to give the utmost force to a period, it ought, if possible, to be closed with that word which makes the greatest figure. The opportunity of a pause should not be thrown away upon accessories, but reserved for the principal object, in order that it may make a full impression: which is an additional reason against closing a period without a circumstance. There are, however, periods that admit not such a structure; and in that case the capital word ought, if possible, to be placed in the front, which next to the close is the most advantageous for making an impression. Hence, in directing our discourse to a man of figure, we ought to begin with his name; and one will be sensible of a degradation when this rule is neglected, as it frequently is for the sake of verse. We give the following examples.

Integer vitæ, scelerisque purus,
Non eget Mauris jaculis, neque arcu,
Nec venenatis gravida sagittis,
Fusce, pharetra. HORAT. *Carm.* lib. 1. ode 22.

Je crains Dieu, cher Abner, et n'ai point d'autre crainte.

In these examples, the name of the person addressed to makes a mean figure, being like a circumstance slipt into a corner. That this criticism is well founded, we need no other proof than Addison's translation of the last example.

O Abner! I fear my God, and I fear none but him.
Guardian, N° 117.

O father, what intends thy hand, she cry'd, Language.
Against thy only son? What fury, O son,
Possesses thee to bend that mortal dart
Against thy father's head?
Paradise Lost, book ii. l. 727.

Every one must be sensible of a dignity in the invocation at the beginning, which is not attained by that in the middle. It is not meant, however, to censure this passage; on the contrary, it appears beautiful, by distinguishing the respect that is due to a father from that which is due to a son.

The substance of what is said in this and the foregoing section, upon the method of arranging words in a period, so as to make the deepest impression with respect to sound as well as signification, is comprehended in the following observation: That order of words in a period will always be the most agreeable, where, without obscuring the sense, the most important images, the most sonorous words, and the longest members, bring up the rear.

Hitherto of arranging single words, single members, and single circumstances. But the enumeration of many particulars in the same period is often necessary: and the question is, In what order they should be placed? And, first, with respect to the enumerating particulars of equal rank: As there is no cause for preferring any one before the rest, it is indifferent to the mind in what order they be viewed; therefore it is indifferent in what order they be named. 2dly, If a number of objects of the same kind, differing only in size, are to be ranged along a straight line, the most agreeable order to the eye is of an increasing series: in surveying a number of subjects, beginning at the least, and proceeding to greater and greater, the mind swells gradually with the successive objects, and in its progress has a very sensible pleasure. Precisely for the same reason, words expressive of such objects ought to be placed in the same order. The beauty of this figure, which may be termed *a climax in sense*, has escaped Lord Bolingbroke in the first member of the following period: "Let but one, great, brave, disinterested, active man arise, and he will be received, followed, and almost adored." The following arrangement has sensibly a better effect: "Let but one brave, great, active, disinterested man arise," &c. Whether the same rule ought to be followed in enumerating men of different ranks, seems doubtful: on the one hand, a number of persons presented to the eye in form of an increasing series, is undoubtedly the most agreeable order; on the other hand, in every list of names, we set the person of the greatest dignity at the top, and descend gradually through his inferiors. Where the purpose is to honour the persons named according to their rank, the latter ought to be followed; but every one who regards himself only, or his reader, will choose the former order. 3dly, As the sense of order directs the eye to descend from the principal to its greatest accessory, and from the whole to its greatest part, and in the same order through all the parts and accessories, till we arrive at the minutest; the same order ought to be followed in the enumeration of such particulars.

When force and liveliness of expression are demanded, the rule is, to suspend the thought as long as possible,

Language. sible, and to bring it out full and entire at the close, which cannot be done but by inverting the natural arrangement. By introducing a word or member before its time, curiosity is raised about what is to follow; and it is agreeable to have our curiosity gratified at the close of the period: the pleasure we feel resembles that of seeing a stroke exerted upon a body by the whole collected force of the agent. On the other hand, where a period is so constructed as to admit more than one complete close in the sense, the curiosity of the reader is exhausted at the first close, and what follows appears languid or superfluous: his disappointment contributes also to that appearance when he finds, contrary to expectation, that the period is not yet finished. Cicero, and after him Quintilian, recommend the verb to the last place. This method evidently tends to suspend the sense till the close of the period; for without the verb the sense cannot be complete; and when the verb happens to be the capital word, which it frequently is, it ought at any rate to be the last, according to another rule above laid down. The following period is placed in its natural order: "Were instruction an essential circumstance in epic poetry, I doubt whether a single instance could be given of this species of composition in any language." The period thus arranged admits a full close upon the word *composition*; after which it goes on languidly, and closes without force. This blemish will be avoided by the following arrangement: "Were instruction an essential circumstance in epic poetry, I doubt whether, in any language, a single instance could be given of this species of composition."

"Some of our most eminent divines have made use of this Platonic notion, as far as it regards the subsistence of our passions after death, with great beauty and strength of reason." *Spect.* Better thus: "Some of our most eminent divines have, with great beauty and strength of reason, made use of this Platonic notion," &c.

"Men of the best sense have been touched, more or less, with these groundless horrors and presages of futurity, upon surveying the most indifferent works of nature." *Ib.* Better, "Upon surveying the most indifferent works of nature, men of the best sense," &c.

"She soon informed him of the place he was in; which, notwithstanding all its horrors, appeared to him more sweet than the bower of Mahomet, in the company of his Balsora." *Guardian.* Better, "She soon, &c. which appeared to him, in the company of his Balsora, more sweet than the bower of Mahomet."

None of the rules for the composition of periods are more liable to be abused than those last mentioned; witness many Latin writers, among the moderns especially, whose style, by inversions too violent, is rendered harsh and obscure. Suspension of the thought till the close of the period, ought never to be preferred before perspicuity. Neither ought such suspension to be attempted in a long period; because in that case the mind is bewildered amidst a profusion of words: a traveller, while he is puzzled about the road, relishes not the finest prospect: "All the rich presents which Astyages had given him at parting, keeping only some Median horses, in order to propagate the breed of them in Persia, he distributed among his friends whom he left at the court of Ecbatana." *Trav. of Cyrus.*

III. *Beauties from a Resemblance between Sound and Signification.* There being frequently a strong resemblance of one sound to another, it will not be surprising to find an articulate sound resembling one that is not articulate; thus the sound of a bow string is imitated by the words that express it: Language.

———————————The string let fly,
Twang'd short and sharp, like the shrill swallow's cry.
Odyssey, xxi. 449.

The sound of felling trees in a wood:

Loud sounds the axe, redoubling strokes on strokes,
On all sides round the forest hurls her oaks
Headlong. Deep echoing groan the thickets brown,
Then *rustling*, *crackling*, *crashing*, thunder down.
Iliad, xxiii. 144.

But when loud surges lash the sounding shore,
The hoarse rough verse should like the torrent roar.
Pope's *Essay on Criticism*, 369.

Dire Scylla there a scene of horror forms,
And here Charybdis fills the deep with storms:
When the tide rushes from her rumbling caves,
The rough rock roars; tumultuous boil the waves.
Pope.

No person can be at a loss about the cause of this beauty; it is obviously that of imitation.

That there is any other natural resemblance of sound to signification, must not be taken for granted. There is no resemblance of sound to motion, nor of sound to sentiment. We are, however, apt to be deceived by artful pronunciation: the same passage may be pronounced in many different tones, elevated or humble, sweet or harsh, brisk or melancholy, so as to accord with the thought or sentiment: such concord must be distinguished from that concord between sound and sense which is perceived in some expressions independent of artful pronunciation; the latter is the poet's work, the former must be attributed to the reader. Another thing contributes still more to the deceit: in language, sound and sense being intimately connected, the properties of the one are readily communicated to the other; for example, the quality of grandeur, of sweetness, or of melancholy, though belonging to the thought solely, is transferred to the words, which by that means resemble in appearance the thought that is expressed by them. That there may be a resemblance of articulate sounds to some that are not articulate, is self-evident; and that in fact there exist such resemblances successfully employed by writers of genius, is clear from the foregoing examples, and from many others that might be given. But we may safely pronounce, that this natural resemblance can be carried no farther; the objects of the different senses differ so widely from each other, as to exclude any resemblance: sound in particular, whether articulate or inarticulate, resembles not in any degree taste, smell, nor motion; and as little can it resemble any internal sentiment, feeling, or emotion. But must we then admit, that nothing but sound can be imitated by sound? Taking imitation in its proper sense, as importing a resemblance between two objects, the proposition must be admitted: and yet in many pas-

Language. sages that are not descriptive of sound, every one must be sensible of a peculiar concord between the sound of the words and their meaning. As there can be no doubt of the fact, what remains is to inquire into its cause.

Resembling causes may produce effects that have no resemblance; and causes that have no resemblance may produce resembling effects. A magnificent building, for example, resembles not in any degree a heroic action; and yet the emotions they produce are concordant, and bear a resemblance to each other. We are still more sensible of this resemblance in a song, when the music is properly adapted to the sentiment; there is no resemblance between the thought and sound; but there is the strongest resemblance between the emotion raised by music tender and pathetic, and that raised by the complaint of an unsuccessful lover. Applying this observation to the present subject, it appears, that, in some instances, the sound even of a single word makes an impression resembling that which is made by the thing it signifies: witness the word *running* composed of two short syllables; and more remarkably the words *rapidity*, *impetuosity*, *precipitation*. Brutal manners produce in the spectator an emotion not unlike what is produced by a harsh and rough sound; and hence the beauty of the figurative expression, *rugged* manners. Again, the word *little*, being pronounced with a very small aperture of the mouth, has a weak and faint sound, which makes an impression resembling that made by a diminutive object. This resemblance of effects is still more remarkable where a number of words are connected in a period: words pronounced in succession make often a strong impression; and when this impression happens to accord with that made by the sense, we are sensible of a complex emotion, peculiarly pleasant; one proceeding from the sentiment, and one from the melody or sound of the words. But the chief pleasure proceeds from having these two concordant emotions combined in perfect harmony, and carried on in the mind to a full close. Except in the single case where sound is described, all the examples given by critics, of sense being imitated in sound, resolve into a resemblance of effects: emotions raised by sound and signification may have a resemblance; but sound itself cannot have a resemblance to any thing but sound.

Proceeding now to particulars, and beginning with those cases where the emotions have the strongest resemblance, we observe, first, That by a number of syllables in succession, an emotion is sometimes raised, extremely similar to that raised by successive motion; which may be evident even to those who are defective in taste, from the following fact, that the term *movement* in all languages is equally applied to both. In this manner, successive motion, such as walking, running, galloping, can be imitated by a succession of long or short syllables, or by a due mixture of both: for example, slow motion may be justly imitated in a verse where long syllables prevail; especially when aided by a slow pronunciation:

Illi inter sese magna vi branchia tollunt.
Georg. iv. 174.

On the other hand, swift motion is imitated by a succession of short syllables:

Quadrupedante putrem sonitu quatit ungula cam- Language.
pum.

Again:

Radit iter liquidum, celeres neque commovet alas:

Thirdly, A line composed of monosyllables makes an impression by the frequency of its pauses, similar to what is made by laborious interrupted motion:

With many a weary step, and many a groan,
Up the high hill he heaves a huge round stone.
Odyssey, xi. 736.

First march the heavy mules securely slow;
O'er hills, o'er dales, o'er craggs, o'er rocks they go.
Iliad, xxiii. 138.

Fourthly, The impression made by rough sounds in succession, resembles that made by rough or tumultuous motion: on the other hand, the impression of smooth sounds resembles that of gentle motion. The following is an example of both.

Two craggy rocks projecting to the main,
The roaring winds tempestuous rage restrain;
Within, the waves in softer murmurs glide,
And ships secure without their haulsers ride.
Odyssey, iii. 118.

Another example of the latter:

Soft is the strain when Zephyr gently blows,
And the smooth stream in smoother numbers flows.
Essay on Criticism, 366.

Fifthly, Prolonged motion is expressed in an Alexandrine line. The first example shall be of a slow motion prolonged:

A needless Alexandrine ends the song;
That, like a wounded snake, drags its slow length along.
Ib. 356.

The next example is of forcible motion prolonged:

The waves behind impel the waves before,
Wide-rolling, foaming high, and tumbling to the shore.
Iliad, xiii. 1004.

The last shall be of rapid motion prolonged:

Not so when swift Camilla scours the plain,
Flies o'er the unbending corn, and skims along the main.
Essay on Criticism, 373.

Again, speaking of a rock torn from the brow of a mountain:

Still gathering force, it smokes, and urg'd amain,
Whirls, leaps, and thunders down impetuous to the plain.
Iliad, xiii. 197.

Sixthly, A period consisting mostly of long syllables, that is, of syllables pronounced slow, produceth an emotion resembling faintly that which is produced by gravity and solemnity. Hence the beauty of the following verse:

Olli sedato respondet corde Latinus.

It resembles equally an object that is insipid and uninteresting.

Tædet quotidianarum harum formarum. TERENCE.

Seventhly,

Language. Seventhly, A slow succession of ideas is a circumstance that belongs equally to settled melancholy, and to a period composed of polysyllables pronounced slow; and hence, by similarity of emotion, the latter is imitative of the former:

In those deep solitudes, and awful cells,
Where heav'nly pensive Contemplation dwells,
And ever-musing Melancholy reigns.
POPE, *Eloisa to Abelard.*

Eighthly, A long syllable made short, or a short syllable made long, raises, by the difficulty of pronouncing contrary to custom, a feeling similar to that of hard labour:

When Ajax strives some rock's *vast* weight to throw,
The line too labours, and the words move slow.
Essay on Criticism, 370.

Ninthly, Harsh or rough words pronounced with difficulty, excite a feeling similar to that which proceeds from the labour of thought to a dull writer.

Just writes to make his barrenness appear,
And strains from hard-bound brains eight lines a year.
POPE'S *Epistle to Dr Arbuthnot*, l. 181.

We shall close with one example more, which of all makes the finest figure. In the first section mention is made of a climax in sound; and in the second of a climax in sense. It belongs to the present subject to observe, that when these coincide in the same passage, the concordance of sound and sense is delightful: the reader is conscious of pleasure not only from the two climaxes separately, but of an additional pleasure from their concordance, and from finding the sense so justly imitated by the sound. In this respect, no periods are more perfect than those borrowed from Cicero in the first section.

The concord between sense and sound is not less agreeable in what may be termed an *anticlimax*, where the progress is from great to little; for this has the effect to make diminutive objects appear still more diminutive. Language.

In this article we have mentioned none of the beauties of language but what arise from words, taken in their proper sense. Beauties that depend upon the metaphorical and figurative power of words, are treated under the separate articles of FIGURES, PERSONIFICATION, APOSTROPHE, HYPERBOLE, METAPHOR, &c. See also ORATORY.

Purity of LANGUAGE. Both the Greeks and Romans were particularly careful of preserving the purity of their language. It seems amongst the Romans to have been a point which they thought worthy the attention of the state itself; for we find the Cumeans not daring to make use of the Latin language in their public acts without having first obtained leave in form. Tiberius himself would not hazard the word *monopolium* in the senate without making an excuse for employing a foreign term. Seneca gives it as a certain maxim, that wherever a general false taste in style and expression prevails, it is an infallible sign of corruption of manners in that people: A liberty of introducing obsolete words, or forming new ones, is a mark, he thinks, of an equal licentiousness of the moral kind. Accordingly it is observed, there are scarce more than eight or ten instances of new words to be produced from the most approved Roman writers, in the course of two or three centuries. If this mode of reasoning concerning the morals of the state was introduced and applied in our own country, no nation on the face of the earth could appear more abandoned; for no nation is more fond of adopting new words; though our language is sufficiently copious. This delicacy of Seneca appears to be carried a little too far, and his manner of estimating the morals of the people must be a little fallacious. The Greeks were very remarkable for their discernment of provincialisms, especially the Athenians, whose dialect was inconceivably sweet and elegant.

L A N

Langued, Languedoc. LANGUED, in *Heraldry*, expresses such animals whose tongue, appearing out of the mouth, is borne of a different colour from the rest of the body.

LANGUEDOC, a large and maritime province of France; bounded on the north by Quercy, Rouerque, Auvergne, and Lionnois; on the east by Dauphiny and Provence; on the west by Gascony; and on the south by the Mediterranean sea and Roussillon. It is 225 miles in length, and 100 in breadth where broadest. It forms the departments of what are now called Aude, Gard, Upper Garonne, and Herault. The clergy were more rich and numerous here than in the rest of France, before the Revolution. Languedoc is divided into the Upper and Lower; and in general it is a very pleasant country, fertile in corn, fruits, and excellent wines; and the inhabitants carry on a considerable trade. There are many curious medicinal plants, with iron mines, quarries of marble, and turquoise stone. There is also a great deal of kelp, and on the heaths are considerable numbers of the kermes oak. The principal rivers are the Rhone, the Garonne, the Aude, the Tarne, the Allier, and the Loire. There are also a great number of mineral springs. Thoulouse is the capital town. This province is famous for the royal canal, which runs through it, joining the Mediterranean with the Atlantic ocean. This canal was undertaken in 1666, and finished in 1680; the mathematician who undertook it made a basin 400 yards long, 300 broad, and 7 feet deep, which is always kept full of water, and may be let out by means of a sluice on the side of the Mediterranean, as well as by another on the side of the Atlantic. Languedoc, Languet.

LANGUET, HUBERT, born at Viteaux in Burgundy in 1518, gained great reputation by his learning and virtue in the 16th century. Having read one of Melancthon's books at Bologna, he conceived so high an esteem for the author, that he went to Wirtemberg purposely to visit him; he arrived there in 1549, when he contracted a strict friendship with Melancthon, and embraced the Protestant religion. In 1565, he was one of the first counsellors of Augustus elector

Languet & Lanham.

elector of Saxony, who employed him in several important affairs and negociations. He was afterwards admitted to the confidence of William prince of Orange; and died at Antwerp on the 30th of September 1581. We have many of his letters written in Latin to Sir Philip Sidney, to Camerarius the father and son, and to Augustus elector of Saxony, which have been several times reprinted, in three volumes; and there is also attributed to him a famous treatise, entitled, *Vindiciæ contra Tyrannos*, and other works. His life is written by Philibert de la Mare.

LANGUET, *John-Baptist-Joseph*, the celebrated vicar of St Sulpice at Paris, and a doctor of the Sorbonne, was born at Dijon in 1675. He was received into the Sorbonne in 1698; and attached himself to the community of St Sulpice, to which parish he was of great service. M. de la Chetardie the vicar, conscious of his talents, chose him for his curate, in which capacity he officiated near ten years; and in 1714 succeeded to the vicarage. His parish church being small and out of repair, he conceived the design of building a church suitable to the size of his parish, which he began with the sum of 100 crowns, but soon obtained considerable donations; and the duke of Orleans, regent of the kingdom, granted him a lottery, and laid the first stone of the porch in 1718. It was consecrated in 1745, after M. Languet had spared neither labour nor expence to render it one of the finest churches in the world both for architecture and ornament. Another work which did him no less honour was the *Maison de l'enfant Jesus*. This establishment consists of two parts; the first composed of about 35 poor ladies of good families, and the second of more than 400 poor women and children of town and country. The order and economy in this house, for the education and employment of so many persons, gave Cardinal Fleury so high an idea of the vicar of St Sulpice, that he proposed to make him superintendant general of all the hospitals in the kingdom; which, however, was declined. Never man took more pains than he did to procure charitable donations and legacies, which he distributed with admirable discretion: he is said from good authority to have disbursed near a million of livres to the poor annually. When there was a general dearth in 1725, he sold, in order to relieve the poor, his household goods, pictures, and some curious pieces of furniture that he had procured with difficulty; and when the plague raged at Marseilles, he sent large sums into Provence for the relief of the distressed. M. Languet was not only singular in this warm, disinterested, benevolent conduct, but also in other circumstances equally rare; and this was in the refusal of several bishoprics that were offered him: he even resigned his vicarage in 1748; but continued to preach every Sunday at his own parish church, and to support the *Maison de l'enfant Jesus*, to his death, which happened in 1750. It is observed, that his piety and charity did not proceed from poverty of talents; for he was sensible and lively in conversation, and his genius often discovered itself in his agreeable repartees.

LANGUOR, among physicians, signifies great weakness and loss of strength, attended with a dejection of mind; so that the patients can scarce walk or even stand upright, but are apt to faint away.

LANHAM. See LAVENHAM.

Laniard & Lansquinet.

LANIARD (from *Lanier*, Fr.), a short piece of cord or line fastened to several machines in a ship, and serving to secure them in a particular place, or to manage them more conveniently. Such are the laniards of the gun port, the laniard of the buoy, the laniard of the cat hook, &c.—The principal laniards used in a ship, however, are those employed to extend the shrouds and stays of the masts by their communication with the dead eyes, so as to form a sort of mechanical power resembling that of a tackle. These laniards are fixed in the dead eyes as follows: one end of the laniards is thrust through one of the holes of the upper dead eye, and then knotted, to prevent it from drawing out; the other is then passed through one of the holes in the lower dead eye, whence, returning upward, it is inserted through the second hole in the upper dead eye, and next through the second in the lower dead eye, and finally through the third holes in both dead eyes. The end of the laniard being then directed upwards from the lowest dead eye, is stretched as stiff as possible by the application of tackles; and that the several parts of it may slide with more facility through the holes of the dead eyes, it is well smeared with hog's lard or tallow, so that the strain is immediately communicated to all the turns at once.

LANIGEROUS, an appellation given to whatever bears wool.

LANISTA, in antiquity, is sometimes used to signify an executioner; but more frequently for a master gladiator, who taught the use of arms, and had always people under him ready to exhibit shows of that kind. For this purpose, they either purchased gladiators, or educated children in that art that had been exposed.

LANIUS, the SHRIKE, or *Butcher bird*, a genus of birds belonging to the order of accipitres. See ORNITHOLOGY *Index*.

LANNER, or LANNAR. See FALCO, ORNITHOLOGY *Index*.

LANSDOWNE, LORD. See GRANVILLE.

LANSQUINET, the name of a game at cards, of French origin,

It may be played at by any indiscriminate number of people, though a single pack of cards is used during the deal. The dealer, who possesses an advantage, shuffles the cards, and after they have been cut by another of the party, deals out two cards on his left hand, turning them up, then one for himself, and a fourth that he places on the table for the company, which is called the *rejouissance*. On this card any, or all the company, the dealer excepted, may put their money, which the dealer is compelled to answer. The dealer continues turning the cards upwards, one by one, till two of a sort come up, that is to say, two aces, two deuces, &c. which, to prevent mistakes, or their being considered as single cards, he places on each side of his own card: and as often as two, three, or the fourth sort of a card come up, he invariably places, as before mentioned, on each side of his own card. The company has a right to take and put money upon any single card, unless the dealer's card should happen to be double, which is often the case, by this card being the same as one of the two hand-cards, which he first dealt out on his left hand: thus he continues dealing till he brings either their cards

or

Lansquinet or his own. Whilst the dealer's own card remains undrawn, he wins; and whichever card is turned up first, loses. If he deals out the two cards on his left hand, which are styled the *hand-cards*, before his own, he is entitled to deal again. This advantage amounts to no more than his being exempted from losing, when he turns up a similar card to his own, immediately after he has turned up one for himself.

Lansquinet is often played without the *rejouissance*, the dealer giving every one of the party a card to put their money upon. It is also often played by dealing only two cards, one for the company and the other for the dealer.

It should likewise be observed, that a limitation is generally fixed for the sum to be placed upon any card or number of cards, either in gold or silver, beyond which the dealer is not obliged to answer.

LANTANA, or INDIAN SAGE, a genus of plants belonging to the didynamia class; and in the natural method ranking under the 40th order, *Personatæ*. See BOTANY *Index*.

LANTERN, or LANTHORN, a device to carry a candle in; being a kind of cover usually made of white iron, with sashes of some transparent matter, as glass, horn, &c. to transmit the light.

Sir George Staunton informs us that some of the Chinese lanterns were entirely made of horn, so very thin and transparent that they were at first taken for glass, to which they prefer it as being cheaper, less liable to accident, and more easily repaired. Those which Sir George had the opportunity of examining, consisted of one uniform piece of horn, the seams being made invisible by an art found out by the Chinese. The horns commonly used are those of sheep or goats, which being bent by immersing them in boiling water, are cut open and flattened, after which they are easily separated into two or three thin plates. To make these laminæ or plates join readily, they are exposed to the penetrating heat of steam till they are perfectly soft, and the edges that are to lap over each other are scraped and slanted off, so that the joinings may be no thicker than any other part of the plate.

Such lanterns would be extremely proper for military store-houses; and Rochou of the National Institute was desired to attempt to make them for the marine store-houses of France. While he was thus engaged, it occurred to him that he might supply the urgent necessities of the navy without horn, by filling up the interstices of wire cloth with fine transparent glue. He first tinned the iron wires of the sieve-cloth he made use of; but afterwards found it more convenient to give it a coating of oil paint to preserve it from rust. The glue he made use of was procured by boiling the clippings of parchment with the air-bladders and membranes of sea-fish, not from any conviction of their superiority to other articles, but as being the cheapest he could procure. To this he added the juice of garlic and cyder, in such proportions as he found to communicate great tenacity. Into this transparent pure glue he plunged his wire-cloth, which came out with its interstices filled with the compound. The ease with which lanterns made of this substance are repaired in case of accident, by a slight coating of glue, is given by the inventor as a great advantage; and, according to him, they were employed as signal lanterns in the expedition to Ireland.

Dark LANTERN, one with only one opening, which, may also be closed up when the light is to be entirely hid, or opened when there is occasion for the assistance of the light to discover some object.

Magic LANTERN, an optical machine, whereby little painted images are represented so much magnified, as to be accounted the effect of magic by the ignorant. See DIOPTRICS, Art. X. p. 37.

LANTERN, in *Architecture*, a little dome raised over the roof of a building to give light, and serve as a crowning to the fabric.

The term *lantern* is also used for a square cage of carpentry, placed over the ridge of a corridor or gallery, between two rows of shops, to illumine them, like that of the Royal Exchange, London.

LANTERN, on ship board, a well known machine, of which there are many in a ship, particularly for the purpose of directing the course of other ships in a fleet or convoy; such are the poop and top lanterns, &c.

Feast of LANTERNS, in China, is a celebrated feast held on the 15th day of the first month; so called from the infinite number of lanterns hung out of the houses and streets; which, it is said, is no less than two hundred millions. On this day are exposed lanterns of all prices, whereof some are said to cost 2000 crowns. Some of their grandees retrench somewhat every day out of their table, out of their dress, equipage, &c. to appear the more magnificent in lanterns. They are adorned with gilding, sculpture, painting, japanning, &c. And as to their size, it is extravagant; some being from 25 to 30 feet diameter: they represent halls and chambers, and two or three such machines together would make handsome houses; so that in China they are able to eat, lodge, receive visits, have balls, and act plays in a lantern. To illumine them, they should have bonfires; but as that would be inconvenient, they content themselves with lighting up in them an infinite number of torches or lamps, which at a distance have a beautiful effect. In these they exhibit various kinds of shows, to divert the people. Besides these enormous lanterns, there is a multitude of others smaller, which usually consist of six faces or lights, each about four feet high, and one and a half broad, framed in wood finely gilt and adorned; over these they stretch a fine transparent silk, curiously painted with flowers, trees, and sometimes human figures: the painting is very extraordinary, and the colours extremely bright; and when the torches are lighted, they appear highly beautiful and surprising.

Lantern Fly. See FULGORA, ENTOMOLOGY *Index*.

LANUGO, the soft down of plants, like that growing on the fruit of the peach tree. See HAIR.

LAOCOON, in fabulous history, a son of Priam and Hecuba, or according to others of Antenor or of Capys. As being priest of Apollo, he was commissioned by the Trojans to offer a bullock to Neptune to render him propitious. During the sacrifice two enormous serpents issued from the sea, and attacked Laocoon's two sons who stood next to the altar. The father immediately attempted to defend his sons; but the serpents falling upon him squeezed him in their complicated wreathes, and he died in the greatest agonies. This punishment

Laocoon. punishment was said to have been inflicted upon him for dissuading the Trojans to bring into the city the fatal wooden horse which the Greeks had consecrated to Minerva, as also for his impiety in hurling a javelin against the sides of the horse as it entered within the walls. According to Hyginus, he suffered the above punishment for his marriage against the consent of Apollo, or, according to others, for his polluting the temple, by his commerce with his wife Antiope, before the statue of the god.

LAOCOON, in the history of the arts, is a celebrated monument of Greek sculpture executed in marble by Agesander, Polydorus, and Athenodorus, the three famous artists of Rhodes. Agesander is supposed to have been the father of the two latter. This remain of antiquity was found at Rome in the ruins of the palace of Titus, in the beginning of the sixteenth century, under the pontificate of Julius II. and afterwards deposited in the Farnese palace. Laocoon, the priest of Apollo and Neptune, is here represented with his two sons, with two hideous serpents clinging round his body, gnawing it, and injecting their poison: Virgil has given us the following description of the fact:

——Serpens amplexus uterque
Implicat, et miseros morsu depascitur artus:——
Corripiunt, spirisque ligant ingentibus, et jam
Bis medium amplexi, bis collo squamea circum
Terga dati, superant capite et cervicibus altis.

This statue exhibits the most astonishing dignity and tranquillity of mind in the midst of the most excruciating torments: Pliny * says of it, that it is, *opus omnibus pictoreæ et statuariæ artis, præferendum.*

* Lib. xxxvi. c. 5.

When Italy was overrun by the French during the late revolution, this wonderful monument of ancient art was removed along with the celebrated Apollo Belvidere, &c. from the Vatican, where they had been seen and admired for 300 years, and placed in the Museum of Arts at Paris. "A hero (says the French account of the latter), guided by victory, drew it from the Vatican, and transporting it to the banks of the Seine, has fixed it there for ever."

† *Hist. of Greece*, ii. 177.

The Laocoon, Dr Gillies † observes, may be regarded as the triumph of Grecian sculpture; since bodily pain, the grossest and most ungovernable of all our passions, and that pain united with anguish and torture of mind, are yet expressed with such propriety and dignity, as afford lessons of fortitude superior to any taught in the schools of philosophy. The horrible shriek which Virgil's Laocoon emits is a proper circumstance for poetry, which speaks to the fancy by images and ideas borrowed from all the senses, and has a thousand ways of ennobling its object: but the expression of this shriek would have totally degraded the statue. It is softened, therefore, into a patient sigh, with the eyes turned to heaven in search of relief. The intolerable agony of suffering nature is represented in the lower part, and particularly in the extremities of the body; but the manly breast struggles against calamity. The contention is still more plainly perceived in his furrowed forehead; and his languishing paternal eye demands assistance, less for himself than for his miserable children, who look up to him for help.

The groupe of the Laocoon is composed of five pieces of marble, joined together with so much art and neatness, that Pliny thought the whole was of one. The right arm of the father, and two of the arms of the children are wanting. The deficiency is supplied by arms moulded on the groupe in plaster of Paris.

Laocoon ‖ Laomedon.

LAODICÆA on the Lycus, in *Ancient Geography*, a town of Phrygia, at first called *Diospolis*, then *Rhoas*. It was built by Antiochus son of Stratonice, and called after his consort *Laodice*. It was long an inconsiderable place; but increased toward the age of Augustus Cæsar, after having suffered in a siege from Mithridates. The fertility of the soil, and the good fortune of some of its citizens, raised it to greatness. Hiero who adorned it with many offerings, left the people his heir to more than 2000 talents. After that benefactor followed Zeno the rhetorician; and his son Polemo, as renowned a sophist as ever lived. This person flourished at Smyrna; but was buried here by the Syrian gate, near which were the sepulchres or coffins of his ancestors. Laodicæa, though inland, grew more potent than the cities on the coast, and became one of the largest towns in Phrygia. It was often damaged by earthquakes, and restored by its own opulence or by the munificence of the Roman emperors. These resources failed, and the city, it is probable, became early a scene of ruin. About the year 1097 it was possessed by the Turks, and submitted to Ducas general of the emperor Alexis. In 1120 the Turks sacked some of the cities of Phrygia by the Mæander, but were defeated by the emperor John Comnenus, who took Laodicæa, and built anew or repaired the walls. About 1161 it was again unfortified. Many of the inhabitants were then killed with their bishop, or carried with their cattle into captivity by the Turks. In 1190 the German emperor, Frederick Barbarossa, going by Laodicæa, with his army toward Syria on a croisade, was received so kindly, that he prayed on his knees for the prosperity of the people. About 1196 this region with Caria was dreadfully ravaged by the Turks. The sultan, on the invasion of the Tartars in 1255, gave Laodicæa to the Romans; but they were unable to defend it, and it soon returned to the Turks. It is now totally ruined and deserted. Several remains of its ancient grandeur are, however, still to be seen; particularly the ruins of two theatres and an amphitheatre.—The memory of this place is consecrated in Scripture, being one of the seven churches to which St John in the Apocalypse addresses himself, commended by St Paul.

LAODICÆA on the sea, in *Ancient Geography*, according to Strabo, was a town of Seleucis in Syria, extremely well built, with a commodious harbour. The country about it yielded great quantities of wine. The city took its name from *Laodice*, mother of Seleucus the founder of it.

LAOMEDON, a king of Troy, whose history is involved in fables. He was son of Ilus king of Troy; and married Strymo, called by some *Placia*, or *Leucippe*, by whom he had Podarces, afterwards known by the name of *Priam*, and Hesione. He built the walls of Troy, and was assisted by Apollo and Neptune, whom Jupiter had banished from heaven, and condemned to be subservient to the will of Laomedon for one year. When the walls were finished, Laomedon refused to reward the labours of the gods; and soon after his territories were laid waste by the sea or Neptune,

Laomedon tune, and his subjects were visited by a pestilence sent by Apollo. Sacrifices were offered to the offended divinities; but the calamities of the Trojans increased, and nothing could appease the gods, according to the words of the oracle, but annually to expose to a sea monster a Trojan virgin. Whenever the monster appeared, the marriageable maidens were assembled, and the lot decided which of them was doomed to death for the good of her country. When this calamity had continued for five or six years, the lot fell upon Hesione, Laomedon's daughter. The king was unwilling to part with his daughter whom he loved with uncommon tenderness, but his refusal would irritate more strongly the wrath of the gods. In the midst of his fear and hesitation, Hercules came and offered to deliver the Trojans from this public calamity, if Laomedon would promise to reward him with a number of fine horses. The king consented; but when the monster was destroyed, he refused to fulfil his engagements, and Hercules was obliged to besiege Troy and take it by force of arms. Laomedon was put to death after a reign of 29 years; his daughter Hesione was given in marriage to Telamon, one of the conqueror's attendants; and Podarces was ransomed by the Trojans, and placed upon his father's throne. According to Hyginus, the wrath of Neptune and Apollo was kindled against Laomedon, because he refused to offer on their altars as a sacrifice all the first born of his cattle, according to a vow he had made.

Lapathus.

LAON, a considerable town of France, in the department of Aisne. Its principal trade consists in corn and wine. Some obstinate fighting between the French and Prussians took place here in 1814. E. Long. 3. 42. N. Lat. 49. 34.

LAOS, a kingdom of Asia beyond the Ganges; bounded on the north by China; on the east, by Tonquin and Cochin China; on the south, by Cambodia; and on the west, by the kingdom of Siam, and by the territories of the king of Ava. This country is full of forests, and abounds in rice, fruits, and fish. The inhabitants are well made, robust, of an olive complexion, and mild in their disposition; but very superstitious, and much addicted to women. Their principal occupation is tilling the ground and fishing. The king shows himself but twice a-year, and has large revenues from the elephants teeth found in his dominions. Their religion is a kind of idolatry, and much the same as in China. Langiona is the capital town.

LAPATHUS, Lapethus, or *Lepithus*, in *Ancient Geography*, a town of Cyprus, about the middle of its north side, with a port or station for ships, and a cognominal river. It was built by a colony of Phœnicians, according to Scylax: by Belus king of Tyre, according to Alexander Ephesius. According to Strabo, it was built by a colony of Spartans; and one of the nine kings resided here, the last of whom was Pisistratus, who commanded the naval army of Alexander the Great. There was a temple here dedicated to Venus. The territory round it is called *Lapithia* by Diodorus and Ptolemy; *Lapithii*, the people, tainted with a degree of fatuity; hence *Lapathius* denotes *fatuus*, (Hesychius).—Now a village called *Lapitha;* but, according to the Abbé Mariti, the longest and most extensive in the island. Besides the advantage of a fine situation, it furnishes the best productions in the country; and though Cyprus is in general not very abundant in fruits, Lapitha seems a favoured spot in this respect, and may be called *the garden of the island.*

Lapathus

Lapis.

LAPIDARY, an artificer who cuts precious stones.

The art of cutting precious stones is of great antiquity. The French have carried this art to a very great perfection, but not in any degree superior to the British.

There are various machines employed in the cutting of precious stones, according to their quality. The diamond, which is extremely hard, is cut on a wheel of soft steel, turned by a mill, with diamond dust, tempered with olive oil, which also serves to polish it.

The oriental ruby, sapphire, and topaz, are cut on a copper wheel with diamond dust tempered with olive oil, and are polished on another copper wheel with tripoli and water. The hyacinth, emerald, amethyst, garnets, agates, and other stones not of an equal degree of hardness with the other, are cut on a leaden wheel with smalt and water, and polished on a tin wheel with tripoli. The turquois of the old and new rock, girasol, and opal, are cut and polished on a wooden wheel with tripoli also.

The lapidaries of Paris have been a corporation since the year 1290. It is governed by four jurats, who superintend their rights and privileges, visit the master workmen, take care of the masterpiece of workmanship, bind apprentices, and administer the freedom.

Lapidary is also used for a virtuoso skilled in the nature, kinds, &c. of precious stones; or a merchant who deals in them.

Lapidary Style, denotes the style proper for monumental or other inscriptions.

This is a kind of medium between prose and verse; the jejune and the brilliant are here equally to be avoided. Cicero has prescribed the rules of it: *Accedat oportet oratio varia, vehemens, plena spiritus. Omnium sententiarum gravitate, omnium verborum ponderibus, est utendum.*

The lapidary style, which was lost with the ancient monuments, has been retrieved at the beginning of this age by Count Emanuel Tesoro: it is now used various ways at the beginning of books; and even epistles dedicatory are composed in it, of which we have no example among the ancients.

LAPIDESCENT, any thing which has the faculty of petrifying, or turning bodies to a stony nature. The older naturalists speak of a lapidescent principle, a lapidescent spirit, a lapidescent juice, &c.

LAPIS, in general, is used to denote a stone of any kind.

Lapis, in Roman antiquity, a geographical measure denoting a mile; because miles were distinguished by erecting a stone at the end of each; from the number marked on which, the length of way from Rome might be known. The device is by Plutarch ascribed to Caius Gracchus. This was more accurately executed by Augustus, who erected a gilt pillar in the forum, at which all the public ways of Italy, distinguished by stones, were terminated. The same thing was done in the Roman provinces. Hence the phrases

Lapis Lapland.

phrases *tertius lapis*, *centesimus lapis*, &c. for three, a hundred, &c. miles; and sometimes the ordinal number without *lapis*, as *ad duodecimum*, &c. at twelve miles distance.

Lapis Assius, in the natural history of the ancients, the name of a stone called also *sarcophagus*, from its power of consuming flesh. See SARCOPHAGUS.

Lapis Bononiensis, the Bolognian stone. See CHEMISTRY, N° 1081, 1082.

Lapis Fungifer, a kind of earth found near Rome, Naples, and Florence. It is found in the chalk hills near Naples, in a stalactitical form and of a white colour, intermixed with fine roots of shrubs. A piece of it from Italy was found to contain siliceous, argillaceous, and calcareous earth, together with some magnesia, vegetable alkali, and oxide of iron.

Lapis Lazuli. See LAZULITE, MINERALOGY *Index*.

Lapis Lyncurius. See LYNCURIUS, } MINERAL-
Lapis Mutabilis. See HYDROPHANES, } OGY *Index*.

Lapis Hepaticus. See *LIVER-Stone*.

Lapis Lydius. See TOUCHSTONE, and *Lapis Lydius*, MINERALOGY *Index*.

Lapis Obsidianus. See OBSIDIAN, MINERALOGY *Index*.

Lapis Nephriticus. See *JADE-Stone*, MINERALOGY *Index*.

LAPITHÆ, in *Ancient Geography*, a people of Thessaly. See the next article.

LAPITHUS, in fabulous history, a son of Apollo, by Stilbe. He was a brother to Centaurus; and married Orsinome, daughter of Euronymus, by whom he had Phorbas and Periphas. The name of Lapithæ was given to the numerous children of Phorbas and Periphas, or rather to the inhabitants of the country of which they had obtained the sovereignty. The chief of the Lapithæ assembled to celebrate the nuptials of Perithous, one of their number. Among them were Theseus, Dryas, Hopleus, Mopsus, Phalerus, Exadius, Prolochus, Titaresius, &c. The Centaurs were also invited to partake the common festivity; and the amusements would have been harmless and innocent, had not one of the intoxicated Centaurs offered violence to Hippodamia the wife of Perithous. The Lapithæ resented the injury, and the Centaurs supported their companions; upon which the quarrel became universal and ended in blows and slaughter. Many of the Centaurs were slain, and they at last were obliged to retire. Theseus among the Lapithæ showed himself brave and intrepid in supporting the cause of his friends; and Nestor also was not less active in the protection of chastity and innocence. Hesiod has described the battle of the Centaurs and Lapithæ; as has also Ovid, in a more copious manner. The invention of bits and bridles for horses is attributed to the Lapithæ.

LAPLAND, the most northerly country of Europe, extending from the North cape in 71° 30′ N. Lat. to the White sea under the arctic circle, is inhabited by the same people, though the country is subject to different powers. Norwegian Lapland lies between the northern sea, the river Pais, and the lake Enarak. Swedish Lapland comprehends all the country from the Baltic to the mountains that separate Norway from Sweden. It is divided into six districts, denominated *marck* or territory; and these are distinguished by the names of rivers, such as Aungnermanland, Elma, Peta, Lula, Torna, and Kimi. The eastern part, subject to Russia, situated between the lake Enarak and the White sea, is divided into three distinct prefectures; namely that of the sea coast towards the north, called *Mourmankoi Leporie*; the Terskoi Leporie, upon the coast of the White sea; and the third, or inland, known by the name of *Bellamoreskoi Leporie*. In Swedish Lapland, which is the most considerable of the three, the provinces or marcks are subdivided into smaller districts called *biars*, consisting each of a certain number of families; among which the land is parcelled out by government, or the prefect of the district appointed by the king of Sweden. Lapland.

Lapland may be termed a huge congeries of frightful rocks and stupendous mountains; interspersed, however, with many pleasant valleys, watered by an infinite number of rivulets that run into the rivers and lakes, which discharge themselves into the gulf of Bothnia. The names of the principal lakes in Lapland are the Great Uma, the Great Windel, the Oreavan, the Stor-avan, the Great Lula; the lakes of Kartom, Kali, Torno, Enara, and Kimi. Some of these extend 60 leagues in length, and contain a great number of islands; Stor-avan is said to contain 365: and Enara contains an archipelago of islands so large that no Laplander has lived long enough to visit each particular island. The natives believe this country to be the terrestrial paradise; and indeed nothing could be more enchanting than such vast prospects of mountains, hills, forests, lakes, rivers, &c. if the country was in a moderate climate; though even here, in summer the roses are seen blowing wild on the banks of the lakes and rivers, with all the beautiful glow of colour which appears in those cultivated in our gardens. But all the intervals between the mountains are not engrossed by these agreeable prospects; great part of the flat country is covered with brown dusky forests of fir and pine trees; and these are often skirted by wide extended morasses, the stagnating waters of which in summer produce myriads of mischievous insects, that are more intolerable than even the cold of winter.

The cold of Lapland is very intense during the winter, freezing even brandy and the watery part of spirit of wine, if the latter is not highly rectified: all the lakes and rivers are frozen to a prodigious thickness; and the whole face of the country is covered with snow to the depth of four or five feet. While this continues loose, it is impossible to travel: for a man's eyes are not only blinded with it, but if a strong wind should rise he will be buried in the drifts of snow: yet should a partial thaw take place for a few hours, the surface of this snow is formed by the succeeding frost into a hard impenetrable crust, over which the Laplander travels in his sledge with great celerity. While the thaw prevails, the air is surcharged with vapours, and the climate is rainy; but while the north wind blows, the sky is beautifully serene, and the air very clear.

The heat of summer is almost as intolerable in Lapland as the cold of winter. At the northern extremity of the country the sun never sets for three months in summer, and in winter there is an uninterrupted night of the same duration; but this is qualified in such

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Lapland. a manner by a constant revolution of dawn and twilight, by a serene sky, moon light, and aurora borealis, reflected from the white surface of the earth covered with snow, that the inhabitants are enabled to hunt, fish, and proceed with their ordinary occupations. The country abounds with excellent springs; and is remarkable for some surprising cataracts, in which the water tumbles over frightful precipices, and dashes among rocks with amazing impetuosity and noise.

The soil of Lapland is generally so chilled and barren, that it produces little or no grain or fruit trees of any kind. This sterility, however, is not so much owing to the soil, which is in many places of a rich mould, as to want of industry; for in some districts the Swedes have tilled and manured pieces of ground that bear plentiful crops of rye. There is also great plenty of berries: such as black currants; what is called the Norwegian mulberry, growing upon a creeping plant, and much esteemed as an antiscorbutic; raspberries, cranberries, juniper berries, and bilberries. The tops of the mountains are so much exposed to intense cold, and tempests of snow and hail, that no tree will grow near the summit; but in parts that are more sheltered, we see fine woods of birch, pine, and fir, disposed by nature as if they had been planted by art in rows at regular distances, without any undergrowth or encumbrance below. Besides these trees, some parts of Lapland produce the service tree, the willow, the poplar, the elder, and the cornel. Among the plants of this country, the principal is the angelica; which is greatly esteemed by the natives, who use it in their food. Here is likewise the acetosa or sorrel, which grows in great plenty, and is of much service on account of its antiscorbutic properties. They have also other kinds of herbs peculiar to the country, different kinds of grass, heath, fern, and moss; which are all enumerated by Linnæus in his *Flora Lapponica*. But the vegetable which is in greatest plenty, and of the most extensive use among them, is the *lichen rangiferus*. The rein deer is wholly sustained in winter by this vegetable; and the Laplanders themselves boil it in broth as a cordial and restorative. They likewise use one sort of it as a soft, easy, and wholesome bed for their new-born children.

Some silver and lead mines have been discovered in the provinces of Pitha and Lula; and two of copper, together with excellent veins of iron, in the district of Torno; but they are not at present worked with any considerable advantage. In some places there are veins of silver and gold mixed; but these mines are worked only for a few months in the summer, because the frost hinders the engines from playing. Here are found beautiful crystals, of a surprising magnitude, so hard and fine, that when polished they resemble real diamonds. In some places amethysts and topazes are also found, but pale and cloudy; also a great quantity of very curious stones, which are too hard to be worked by the tool of the mason. Some of these, found on the banks of rivers and lakes, when they happen to bear the least resemblance to the figures of animals, the Laplanders remove to more conspicuous places, and adore as deities. The province of Tornea affords some curious stones of an octagonal shape, regular, shining, and polished by the hand of nature. In some rivers they fish for pearls, which are generally pale; but some of them are as bright as the oriental pearls, and much larger and rounder. These pearls are found in mussel shells; and the fishery is not in the sea, but in rivers. Lapland.

Lapland, as well as Norway, is infested with a great number of gray wolves and bears, with whom the inhabitants wage perpetual war. The most honourable exploit among the Laplanders is that of killing a bear; and the heroes adorn their caps with a small plate of lead or pewter for every bear they have slain. The country abounds also with elks, beavers, and otters, which live here unmolested, and find plenty of fish for their subsistence. The forests of this country furnish haunts to a great number of beautiful martens and squirrels, which last change their colour every winter from brown to gray. Lapland is also the native country of the zibeling or sable, whose skin is extremely valuable. Here are likewise ermines, weasels, hares, large black cats which attend the Laplanders in hunting, and little prick-eared curs trained to the game. But the most remarkable animal of Lapland is the rein deer, for an account of which, see CERVUS, MAMMALIA *Index*. These animals, so useful in various respects to the natives, are kept at no expence. In summer they feed upon grasses and alpine plants; in winter, as already mentioned, upon the *lichen rangiferus*, or reindeer lichen, and its varieties, which are so abundant as in many parts almost totally to cover the ground for the space of several miles, and which the sagacious animal discovers under the snow by the peculiar acuteness of its smell. Most of those used for draught are castrated when very young, and are larger and fatter than the bucks. The woods, mountains, and rivers, are well stocked with wild fowl; such as bustard, partridge, growse, heathcock, pheasants, lapwings, swans, wild geese, wild ducks, and all sorts of aquatic birds that build and breed in northern climates. In the beginning of the spring the swans go thither in numerous flights from the German ocean; the lapwings follow in such swarms that they darken the sky as they pass along, and scream so loud that they may be heard at a great distance. The rocks and mountains are likewise frequented by eagles, hawks, falcons, kites, and other birds of prey. The rivers abound with delicious salmon from the gulf of Bothnia, trout, bream, and perch of exquisite flavour and amazing magnitude; and the inhabitants of Wardhus, or Danish Lapland, are well supplied with fish from the northern ocean.—With respect to insects, the flies hatched in the morasses and woods in summer are so numerous, that they often obscure the face of day; and so venomous, troublesome, and intolerable, that the rein deer fly to the tops of the highest mountains for shelter, and the Laplanders betake themselves to the sea side, which is the least infested by these pestilent vermine.—M. de Maupertuis, in his account of the voyage he made to Lapland, in company with the other French mathematicians sent thither by the king to measure a degree of the meridian, gives us to understand, that on the tops of the mountains in Torno the flies were so troublesome, that even the Finland soldiers, who are accounted the most hardy troops in the service of Sweden, were obliged to cover their faces with the skirts of their coats from the attacks of these

Lapland. animals, which swarmed to such a degree, that the moment a piece of flesh appeared it was blackened all over. Some of these flies are very large, with green heads, and fetch blood from the skin whereever they strike. The Laplanders shroud themselves in the smoke of a large fire kindled for that purpose: yet even this disagreeable expedient was not sufficient to defend the French philosophers: they were obliged, notwithstanding the excessive heat, to wrap up their heads in garments made of the skins of rein deer, called in that country *lapmudes*, and to cover themselves with a thick rampart of fir boughs; yet all these precautions proved ineffectual. M. de Maupertuis observed a lake quite covered with little yellowish grains, resembling millet seed, which he supposes to be the chrysalises of some of these insects.

The Laplanders are very low in stature, and are likewise remarkable for having large heads. They are also ill-shaped, and their features harsh. They are, however, strong, hardy, and robust, insomuch that they will bear incredible fatigue; and it is remarked that the stoutest Norwegian is not able to bend the bow of a Laplander. The women are much less homely than the men, and many of them are noted for a delicate and florid complexion.

These people are simple, honest, hospitable, and timorous: their timidity, however, respects war alone; for to many other species of dangers they expose themselves with surprising intrepidity, whether in ascending and descending mountains and precipices with their snow shoes and in sledges, or in venturing amidst whirlpools and cataracts in little slender boats made of thin fir boards, fastened together with thongs of leather, sinews of wild beasts, or tough and flexible twigs of willow and osier. These boats are of different sizes, from two to six yards in length, managed with oars and caulked with moss so tight as to keep out the water. The Laplanders are partly settled, and in part wild and roving: the latter live in tents made of coarse cloth; the former are fixed in small villages near the lakes, and chiefly follow fishing. They build their cottages somewhat in the shape of a cone, by placing a circle of large trees or poles aslant in the earth, and close to each other, so that their tops meet, and form a small vent for the issue of the smoke; they cover the ground within with branches of trees. In spring their food consists principally of the eggs of water fowl, which are extremely plentiful in those parts; in summer and autumn, of the birds themselves, and of various others of the partridge tribe; and in winter of the milk and flesh of the rein deer and dried fish. They had till lately no bread; but in lieu thereof used the inner rind of the pine tree dried and ground, and dried fish reduced to powder. They make confections and decoctions of berries, angelica, and sorrel, which they justly reckon to be preservatives against the scurvy. The Laplander is secured in the possession of uninterrupted health by temperance and exercise, which, together with the severity of the climate, brace his nerves to a very unusual pitch of strength, and fortify his constitution in such a manner, that he often lives to the age of 100, without feeling the least pang of distemper, or even perceiving his vigour in the least impaired; for it is not uncommon to see a Laplander, in extreme old age, hunting, fowling, skating, and performing all the severest exercises with undiminished agility. Lapland.

The summer garb of the men consists of a long coat of coarse cloth, reaching down the middle of the leg, and girded round the waist with a belt or girdle; from which hang a Norway knife, and a pouch containing flints, matches, tobacco, and other necessaries; the girdle itself being decorated with brass rings and chains. Their caps are made of the skin of the northern diver, with the feathers on; and their shoes of the rein deer skin, with the hair outwards. They wear no linen; but the garments of the better sort are of a finer cloth, and they delight in a variety of colours, though red, as the most glaring, is the most agreeable. In winter they are totally cased up in coats, caps, boots, and gloves, made of the rein deer skins. In the *Flora Lapponica* Linnæus says, "Perhaps the curious reader will wonder how the people in Lapland, during the terrible cold that reigns there in winter, can preserve their lives; since almost all birds, and even some wild beasts, desert it at that time. The Laplander, not only in the day, but through the whole winter nights, is obliged to wander about in the woods with his herds of rein deer. For the rein deer never come under cover, nor eat any kind of fodder, but a particular kind of liverwort. On this account the herdsmen are under the necessity of living continually in the woods, in order to take care of their cattle, lest they should be devoured by wild beasts. The Laplander easily does without more light, as the snow reflects the rays that come from the stars, and as the *aurora borealis* illuminates the air every night with a great variety of figures. No part of our body is more easily destroyed by cold than the extremities of the limbs which are most remote from the sun of this microcosm, the heart. The kibes that happen to our hands and feet, so common in the northern parts of Sweden, prove this. In Lapland you will never see such a thing; although, were we to judge by the situation of the country, we should imagine just the contrary, especially as the people wear no stockings, as we do, not only single, but double and triple. The Laplander guards himself against the cold in the following manner: He wears breeches made of rein deer skins with the hair on, reaching down to his heels, and shoes made of the same materials, the hairy part turned outwards. He puts into his shoes slender-eared broad-leafed cyperus grass (*carex vesicaria*, *Spec. Pl.* or the bladder carex), that is cut in summer and dried. This he first combs and rubs in his hands, and then places it in such a manner that it not only covers his feet quite round, but his legs also; and being thus guarded, he is quite secured against the intense cold. With this grass they stuff their gloves likewise, in order to preserve their hands. As this grass keeps off the cold in winter, so in summer it hinders the feet from sweating, and at the same time preserves them from being annoyed by striking against stones, &c. for their shoes are very thin, being made, not of tanned leather, but the raw hide."

The women's apparel differs very little from that of the other sex: only their girdles are more ornamented with rings, chains, needle-cases, and toys, that sometimes weigh 20 pounds. In winter, both men and women lie in their furs; in summer they cover themselves

Lapland. selves entirely with coarse blankets to defend them from the gnats, which are intolerable. The Laplanders are not only well disposed, but naturally ingenious. They make all their own furniture, their boats, sledges, bows and arrows. They form neat boxes of thin birch boards, and inlay them with the horn of the rein deer. The Swedes are very fond of the Lapland baskets made of the roots of trees, slit in long thin pieces, and twisted together so nicely that they will hold water. Among the manufactures of this country, we likewise number curious horn spoons, and moulds in which they cast the trinkets of tin which adorn their girdles. Over and above these domestic occupations, the men within doors perform the office of cooks in dressing victuals for the family. The women act as tailors and embroiderers; they make clothes, shoes, and boots, and harness for the rein deer; they spin thread of fur, and knit it into caps and gloves that are very soft and warm. They draw tin into wire through a horn; and with this they cover the thread which they use in embroidering the figures of beasts, flowers, trees, and stars upon their caps and girdles.

The Laplanders make surprising excursions upon the snow in their hunting expeditions. They provide themselves each with a pair of skates, or snow shoes, which are no other than fir boards covered with the rough skin of the rein deer, turned in such a manner that the hair rises against the snow, otherwise they would be too slippery. One of these shoes is usually as long as the person who wears it; the other is about a foot shorter. The feet stand in the middle, and to them the shoes are fastened by thongs or withes. The Laplander thus equipped wields a long pole in his hand, near the end of which there is a round ball of wood to prevent its piercing too deep in the snow; and with this he stops himself occasionally. By means of these accoutrements he will travel at the rate of 60 miles a-day without being fatigued; ascending steep mountains, and sliding down again with amazing swiftness.

The Laplander not only travels a-foot, but is provided with a carriage drawn by the rein deer, in which he journeys with still greater rapidity. The sledge, called *pulka*, is made in the form of a small boat, with a convex bottom, that it may slide the more easily over the snow: the prow is sharp and pointed; but the sledge is flat behind. The traveller is swathed in this carriage like an infant in a cradle, with a stick in his hand to steer the vessel, and disengage it from pieces of rock or stumps of trees that may chance to encounter it in the route. He must also balance the sledge with his body, otherwise he will be in danger of being overturned. The traces, by which this carriage is fastened to the rein deer, are fixed to a collar about the animal's neck, and run down over the breast between the fore and hind legs, to be connected with the prow of the sledge: the reins, managed by the traveller, are tied to the horns; and the trappings are furnished with little bells, the sound of which is agreeable to the animal. With this draught at his tail, it has been reported that the rein deer will fly like lightning over hill and dale at the rate of 200 miles a-day. But this representation is greatly exaggerated. According to the best accounts, the common pace of the rein deer is only at the rate of about four miles an hour; though, if he be pressed, he will travel 10 or 12 Swedish miles (70 or 84 English miles) in a day; but by such hard driving is generally destroyed. It, however, frequently happens, that he will persevere in his journey 50 miles without intermission, and without taking any refreshment, except occasionally moistening his mouth with the snow. Before he sets out, the Laplander whispers in his ear the way he is to follow, and the place at which he is to halt, firmly persuaded that the beast understands his meaning: but, in spite of this intimation, he frequently stops short long before he has reached the journey's end; and sometimes he overshoots the mark by several leagues. In the beginning of winter the Laplanders mark the most frequented roads, by strewing them with fir boughs; and indeed these roads are no other than pathways made through the snow by the rein deer and the pulkas: their being frequently covered with new snow, and alternately beaten by the carriage, consolidates them into a kind of causeway; which is the harder if the surface has felt a partial thaw, and been crusted by a subsequent frost. It requires great caution to follow these tracks; for if the carriage deviates to the right or left, the traveller is plunged into an abyss of snow. In less frequented parts, where there is no such beaten road, the Laplander directs his course by certain marks which he has made on the trees. Lapland.

The chief occupation of the Laplanders is hunting, and this exercise they perform in various ways. In summer they hunt the wild beasts with small dogs, trained to the diversion. In winter they pursue them by their tracks upon the snow, skating with so great velocity, that they very often run down the prey. They catch ermines in traps and sometimes with dogs. They kill squirrels, martens, and sables, with blunt darts, to avoid wounding the skin. Foxes and beavers are slain with sharp-pointed darts and arrows; in shooting which, they are accounted the best marksmen in the world. The larger beasts, such as bears, wolves, elks, and wild rein deer, they either kill with firearms purchased in Sweden or Norway, or take in snares and pits dug in the forests. Their particular laws relating to the chase are observed with great punctuality. The beast becomes the property of the man in whose snare or pit he is caught; and he who discovers a bear's den has the exclusive privilege of hunting him to death. The conquest of a bear is the most honourable achievement that a Laplander can perform; and the flesh of this animal they account the greatest delicacy on earth. The bear is always despatched with a fusil, sometimes laid as a snare, ready cocked and primed; but more frequently in the hands of the hunter, who runs the most imminent risk of his life should he miss his aim of wounding the beast mortally. The death of a bear is celebrated by the Laplanders as a signal victory. The carcass is drawn to the cabin or hut of the victor by a rein deer, which is kept sacred from any other work for a whole year after this service. The bear is surrounded by a great number of men, women, and children, reciting a particular hymn or song of triumph, in which they thank the vanquished enemy for having allowed himself to be overcome without doing any mischief to his conqueror, and welcome his arrival: then they make an apostrophe to heaven, expressing their acknowledgment to

Lapland. God, that he has created beasts for the use of men, and endued mankind with strength and courage to overcome and attack the fiercest of the brute creation. The hero is saluted by the women, who spit chewed elder-bark in his face. He is feasted three days successively, and his cap is decorated with an additional figure wrought in tin wire.

The manner in which the young Laplander chooses a wife is equally remarkable and ludicrous. When he has pitched upon a female, he employs some friends as mediators with the father; and these being provided with some bottles of brandy, the suitor accompanies them to the hut of his future father-in-law, who invites the mediators to enter; but the lover is left without until the liquor be drank, and the proposal discussed: then he is called in, and entertained with such fare as the hut affords; yet without seeing his mistress, who retires and goes out on this occasion. Having obtained leave of her parents to make his addresses in person, he puts on his best apparel, and is admitted to the lady, whom he salutes with a kiss; then he presents her with the tongue of a rein deer, a piece of beaver's flesh, or some other sort of provision. She declines the offer, which is made in presence of her sisters and relations; but makes a signal to the lover to follow her into the fields, where she accepts the presents. Thus encouraged, he begs her permission to sleep with her in the hut; if she consents, there is no further difficulty; if she disapproves of the proposal, she drops her presents on the ground. When the lovers are agreed, the youth is permitted to visit his inamorata as often as he shall think proper; but every time he comes, he must purchase this pleasure with a fresh bottle of brandy; a perquisite so agreeable to the father, that he often postpones the celebration of the nuptials for two or three years. At length the ceremony is performed at church by the priest of the parish. Even after this event, the husband is obliged to serve his father-in-law a whole year; at the expiration of which he retires to his own habitation with his wife and her patrimony of rein deer, and receives presents from all his friends and relations. From this period he sequesters his wife from the company of all strangers, especially of the male sex, and watches over her conduct with the most jealous vigilance.

Many Lapland women are barren, and none of them are very fruitful. A woman, immediately after delivery, swallows a draught of whale fat: the child is washed with snow or cold water, and wrapped up in a hare skin. The mother is seldom above five days in the straw, and in fourteen is generally quite recovered: then she carries the child to church to be baptized. Before she can reach the residence of the priest, she is often obliged to traverse large forests, mountains, lakes, and wide extended wastes of snow. The infant is fastened in a hollowed piece of wood, stretched naked on a bed of fine moss, covered with the soft skin of a young rein deer, and slung by two straps to the back of the mother, who always suckles her own child. At home this little cradle is hung to the roof of the hut, and the child lulled asleep by swinging it from one side to the other. The boys from their infancy practise the bow; and are not allowed to break their fast until they have hit the mark. The female children are as early initiated in the business peculiar to their sex. Lapland.

These people, though for the most part vigorous and healthy, are not altogether exempted from distemper. They are subject to sore eyes, and even to blindness, from the smoke of their huts, and the fire to which they are almost continually exposed. Some waste away in consumptions; others are afflicted with rheumatic pains and the scurvy; and a few are subject to vertigo and apoplexy. For the cure of all their internal disorders, they use no other medicine than the decoction of a certain species of moss; and when this cannot be procured, they boil the stalk of angelica in the milk of the rein deer. In order to remove a fixed pain, they apply a large mushroom, burning hot, to the part affected; and this produces a blister, which is supposed to draw off the peccant humour. To their wounds they apply nothing but the turpentine that drops from the fir tree. When they are frost bitten (though according to the above extract from Linnæus this seldom or never happens), we are told that they thrust a red-hot iron into a cheese made of rein deer's milk, and with the fat that drops from it anoint the frozen member, which generally recovers. When a Laplander is supposed to be on his death-bed, his friends exhort him to die in the faith of Christ, and bear his sufferings with resignation, by remembering the passion of our Saviour. They are not, however, very ready to attend him in his last moments; and as soon as he expires, quit the place with precipitation, apprehending some injury from his spirit or ghost, which they believe remains with the corpse and takes all opportunities of doing mischief to the living. The deceased is wrapped up in woollen or linen, according to his circumstances, and deposited in a coffin by a person selected for that purpose: but this office he will not perform, unless he is first secured from the ill offices of the manes, by a consecrated brass ring fixed on his left arm. The Christian religion in this country has not yet dispelled all the rites of heathenish superstition: together with the body they put into the coffin an axe, a flint, and steel, a flask of brandy, some dried fish and venison. With the axe the deceased is supposed to hew down the bushes or boughs that may obstruct his passage in the other world: the steel and flint are designed for striking a light, should he find himself in the dark at the day of judgment; and on the provision they think he may subsist during his journey.

The Muscovite Laplanders observe other ceremonies, that bear an affinity to the superstitions of the Greek church. They not only supply the defunct with money, but likewise provide him with money for the porter of paradise, and a certificate signed by the priest, and directed to St Peter, specifying that the bearer had lived like a good Christian, and ought to be admitted into heaven. At the head of the coffin they place a little image of St Nicholas, who is greatly reverenced in all parts of Muscovy as a friend to the dead. Before the interment, the friends of the deceased kindle a fire of fir boughs near the coffin, and express their sorrow in tears and lamentations. They walk in procession several times round the body, demanding, in a whining tone, the reason of his leaving them on earth. They ask,

Lapland. ask whether he was ont of humour with his wife; whether he was in want of meat, drink, clothing, or other necessaries; and whether he had not succeeded in hunting and fishing? These, and other such interrogations, to which the defunct makes no reply, are intermingled with groans and hideous howlings; and, between whiles, the priest sprinkles the corpse and the mourners alternately with holy water. Finally, The body is conveyed to the place of interment on a sledge drawn by a rein deer; and this, together with the clothes of the deceased, are left as the priest's perquisite. Three days after the burial, the kinsmen and friends of the defunct are invited to an entertainment, where they eat the flesh of the rein deer which conveyed the corpse to the burying ground. This being a sacrifice to the manes, the bones are collected into a basket, and interred. Two thirds of the effects of the deceased are inherited by his brothers, and the remainder divided among his sisters: but the lands, lakes, and rivers, are held in coparceny by all the children of both sexes, according to the division made by Charles IX. of Sweden, when he assigned a certain tract of land to each family.

The commerce of the Laplanders is more considerable than one would expect in a desert country, inhabited by a savage ignorant people. They export great quantities of fish to the northern parts of Bothnia and White Russia. They likewise trade with the neighbouring countries of Norway, Sweden, Muscovy, and Finland, by selling rein deer, fine furs, baskets and toys of their own manufacture, dried pikes, and cheese made of the rein deer's milk. In return for these commodities they receive rixdollars, woollen cloths, linen, copper, tin, flour, oil, hides, needles, knives, spirituous liquors, tobacco, and other necessaries. The Laplanders march in caravans to the fairs in Finland and Norway: these are composed of a long string of 30 or 40 rein deer and pulkas tied to one another, the foremost being led by a Laplander on foot. When they have chosen a spot for an encampment, they form a large circle of their reen deer and pulkas ready yoked; and the animals lying down quietly on the snow, are fed with moss by their masters. The people kindle great fires, around which, men, women, and children sit, and sup on dried fish: but the more voluptuous spread out bear skins under their tents, where they lie at their ease and smoke tobacco.

The revenue arising from this country is of no great consequence: it is paid partly in rixdollars, but chiefly in furs; nay, some that can procure neither, pay the tribute in dried pikes. The produce of the mines forms likewise a considerable article. Fifty squirrel skins, or one fox skin, with a pair of Lapland shoes, are valued at one rixdollar. Part of the taxes is allotted for the maintenance of the Lapland clergy. The frightful aspect of this country has been deemed a more effectual defence than artificial bulwarks and garrisons, of which here are none; or than the arms and courage of the natives, who are neither warlike in themselves, nor in the least tinctured with discipline.

The Laplanders call themselves *Salme-Same*, and *Samen-Almatjeh*. Their country they denominate *Same-Landa*, or *Same-aednam*; the Swedes style it *Lapland* or *Lappmarken*, and the inhabitants *Lappar*. The natives of those districts under the dominion of Sweden are Lutherans; while many of those who are subject to Russia are still Pagans. The churches in some parts lie at so great a distance from each other, that a native is frequently obliged to travel three days in order to attend divine service. The Laplanders, before their conversion to Christianity, which was not till lately introduced amongst them, possessed no books or manuscripts, though they knew many traditional histories and songs of ancient heroes and princes who once reigned over them. They have now a translation of the New Testament in their language; and many of the natives are able to read and write. Though the country is as large as France, the whole population does not exceed 60,000 souls. Lapland || Lapse.

LAPLYSIA, or SEA-HARE; a genus of marine animals belonging to the class of vermes. See HELMINTHOLOGY *Index*.

LAPSANA, NIPPLEWORT; a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See BOTANY *Index*.

LAPSE, in ecclesiastical law, a slip or omission of a patron to present a clerk to a benefice within six months of its being void: in which case, the benefice is said to be in *lapse*, or *lapsed*, and the right of presentation devolved to the ordinary.

And if the ordinary neglect to present during the same time, the right of presentation accrues to the metropolitan, and to the king by neglect of the metropolitan. This right of lapse was first established in the reign of Henry II. when the bishops first began to exercise universally the right of institution to churches: and therefore when there is no right of institution, there is no right of lapse; so that no donative can lapse to the ordinary, unless it hath been augmented by the king's bounty; but no right of lapse can accrue, when the original presentation is in the crown. In case the benefice becomes void by death, or cession through plurality of benefices, there the patron is bound to take notice of the vacancy at his own peril; but in case of a vacancy by resignation or canonical deprivation, or if a clerk presented be refused for insufficiency, these being matters of which the bishop alone is presumed to be cognizant, here the law requires him to give notice thereof to the patron, otherwise he can take no advantage by way of lapse; neither shall any lapse accrue thereby to the metropolitan or the king. If the bishop refuse or neglect to examine and admit the patron's clerk, without good reason assigned or notice given, he shall have no title to present by lapse: and if the right of presentation be litigious or contested, and an action be brought against the bishop to try the title, no lapse shall occur till the question of right be decided. If the bishop be both patron and ordinary, he shall not have a double time allowed him to collate in: and if the bishop doth not collate his own clerk immediately to the living, and the patron presents, though after the six months are lapsed, yet the presentation is good, and the bishop is bound to institute the patron's clerk. If the bishop suffer the presentation to lapse to the metropolitan, the patron also has the same advantage if he presents before the archbishop has filled up the benefice: yet the ordinary,

Lapse ‖ Larceny.

ordinary cannot, after lapse to the metropolitan, collate his own clerk to the prejudice of the archbishop. But if the presentation lapses to the king, the patron shall never recover his right till the king has satisfied his turn by presentation; for *nullum tempus occurrit regi*.

LAPWING. See TRINGA, ORNITHOLOGY *Index*.

LAQUEARIUS, a kind of athleta among the ancients, who in one hand held a *laqueus*, i. e. a sort of snare, wherewith to embarrass and entangle his antagonist, and in the other a poniard to stab him.

LAQUEUS, in *Surgery*, a kind of ligature so contrived, that, when stretched by any weight or the like, it draws up close. Its use is to extend broken or disjointed bones, to keep them in their places while they are set, and to bind the parts close together.

LAR, a town of Persia, in the province of Fars, with a castle. It carries on a great trade in silk; and its territory abounds in oranges, lemons, and very large tamarinds. E. Long. 54. 15. N. Lat. 27. 30.

LARACHA, an ancient and strong town of Africa, in the kingdom of Fez. It is seated at the mouth of a river of the same name, with a good harbour. It was once in the possession of the Spaniards; but the Moors took it from them. W. Long. 5. 55. N. Lat. 35. 0.

LARARIUM, was a chapel which the Romans frequently had in their houses for the household gods, called *lares*. Spartian says, that Alexander the son of Mammeus kept in his lararium the figure of our Saviour, together with his other idols.

LARBOARD, among seamen, the left-hand side of the ship when you stand with your face towards the head.

LARCENY, or THEFT, by contraction for latrociny, *latrocinium*, is distinguished by the law into two sorts: the one called *simple larceny*, or plain theft, unaccompanied with any other atrocious circumstance; and *mixed* or *compound larceny*, which also includes in it the aggravation of a taking from one's house or person.

I. *Simple* larceny, when it is the stealing of goods above the value of twelvepence, is called *grand larceny*; when of goods to that value, or under, is *petit larceny*: offences, which are considerably distinguished in their punishment, but not otherwise. See THEFT.

II. *Mixed*, or *compound* larceny, is such as has all the properties of the former, (see THEFT); but is accompanied with either one or both of the aggravations of a taking from one's *house* or *person*. First therefore of larceny from the *house*, and then of larceny from the *person*.

1. Larceny from the *house*, though it might seem to have a higher degree of guilt than simple larceny, yet is not at all distinguished from the other at common law; unless where it is accompanied with the circumstance of breaking the house by night; and then it falls under another description, viz. that of burglary, (see BURGLARY). But now by several acts of parliament (the history of which is very ingeniously deduced by a learned modern writer *, who hath shown them to have gradually arisen from our improvements in trade and opulence), the benefit of clergy is taken from larcenies committed in a house in almost every instance: except that larceny of the stock or utensils of the Plate Glass Company from any of their houses, &c. is made only single felony, and liable to transportation for seven years. The multiplicity of the general acts is apt to create some confusion; but upon comparing them diligently, we may collect, that the benefit of clergy is denied upon the following domestic aggravations of larceny; viz. first, in larcenies *above the value of twelvepence*, committed, 1. In a church or chapel, with or without violence, or breaking the same: 2. In a booth or tent in a market or fair, in the daytime or in the night, by violence or breaking the same, the owner or some of his family being therein: 3. By robbing a dwelling house in the daytime (which *robbing* implies a breaking), any person being therein: 4. In a dwelling house by day or by night, without breaking the same, any person being therein and put in fear; which amounts in law to a robbery: and in both these last cases the accessory before the fact is also excluded from his clergy. Secondly, In larcenies *to the value of five shillings*, committed, 1. By breaking any dwelling house, or any outhouse, shop, or warehouse thereunto belonging, in the daytime, although no person be therein; which also now extends to aiders, abettors, and accessories before the fact: 2. By privately stealing goods, wares, or merchandise in any shop, warehouse, coach-house, or stable, by day or by night; though the same be not broken open, and though no person be therein: which likewise extends to such as assist, hire, or command the offence to be committed. Lastly, in larcenies *to the value of forty shillings* in a dwelling house, or its outhouses, although the same be not broken, and whether any person be therein or not; unless committed against their masters by apprentices under the age of 15. This also extends to those who aid or assist in the commission of any such offence.

Larceny. Lardizabala.

Blackstone's Commentaries.

2. Larceny from the *person*, is either by *privately* stealing, or by open and violent assault, which is usually called *robbery*.

The offence of *privately* stealing from a man's *person*, as by picking his pocket or the like, privily, without his knowledge, was debarred of the benefit of clergy so early as by the statute 8 Eliz. c. 4. But then it must be such a larceny as stands in need of the benefit of clergy, viz. of above the value of 12d.; else the offender shall not have judgment of death. For the statute creates no new offence; but only takes away the benefit of clergy, which was a matter of grace, and leaves the thief to the regular judgment of the ancient law. This severity (for a most severe law it certainly is) seems to be owing to the ease with which such offences are committed, the difficulty of guarding against them, and the boldness with which they were practised (even in the queen's court and presence) at the time when this statute was made: besides that this is an infringement of property in the manual occupation or corporal possession of the owner, which was an offence even in a state of nature. And therefore the *sacculatii*, or cutpurses, were more severely punished than common thieves by the Roman and Athenian laws.

As to open and violent larceny from the person, see ROBBERY.

LARDIZABALA, a genus of plants belonging to the dioecia class, and order hexandria. It is a native of

* *Barr.* 375.

Laidiza-bala, Lardner.

of Chili, and is thus described from the drawings of La Martiniere the naturalist, who accompanied La Perouse in his voyage of discovery.

Male Flower.—Calyx formed of six expanding leaves, oblong, oval, and obtuse; the three outermost being largest. Corolla composed of six sharp petals, shorter than the leaves of the calyx.

Female Flower.—Calyx similar to that of the male, but larger. Corolla composed of six petals rarely entire, but commonly trifid at their top. Stamina six; filaments distinct; anthers six, oblong, barren. Seed-bud; cells from three to six, oblong, nearly the length of the corolla; styles none; stigmata sitting, permanent. Berries equal in number to the cells, oblong, acuminated (divided into six cells, containing several angular seeds).

LARDNER, NATHANIEL, an eminent English dissenting divine, was born at Hawkhurst in Kent, June 6. 1684. After a grammatical education, to which great attention must have been given, and in which a no less rapid progress must have been made, he was sent first to a dissenting academy in London, which was under the care of the Rev. Dr Joshua Oldfield; and thence, in his 16th year, to prosecute his studies at Utrecht, under the celebrated professors D'Uries, Grævius, and Burman. Here he remained somewhat more than three years, and then removed for a short space to Leyden. In 1703 he returned to England, continuing at his father's house to employ himself by close and diligent preparation for the sacred profession which he had in view. Qualified as he was, it was not till 1709 that he preached his first sermon, from Romans i. 16.—"a text (his biographer remarks) than which there could not have been a more proper one for a man who was destined in the order of Divine Providence to be one of the ablest advocates for the authenticity and truth of the Christian revelation that ever existed."

A few years after this, Lardner was received into Lady Treby's family as domestic chaplain and tutor to her son, and continued in this comfortable situation till her ladyship's death in 1721. This event threw him into circumstances of some perplexity, having preached to several congregations during his residence with Lady Treby without the approbation or choice of any one congregation. Here we are told, "that it reflects no honour on the Dissenters, that a man of such merit should so long have been neglected." But it has been observed upon this, that the pulpit was not the place in which Mr Lardner was calculated either to convey improvement or acquire reputation. Dr Kippis afterwards informs us, "that his mode of elocution was very unpleasant; that from his early and extreme deafness he could have no such command of his voice as to give it a due modulation; and that he greatly dropped his words." It cannot then, as his biographer adds, be matter of surprise that he was not popular; nor, it may be added, can it be any reflection on the congregations to which he occasionally preached, that they did not choose for their ministry a man, who, notwithstanding his great learning and amiable virtues, was so deficient as a public speaker, that it was impossible to hear him with any pleasure, and scarcely without pain.

Monthly Review, Jan 1789.

Though Mr Lardner had no church at which he officiated as minister, he was engaged with some of his dissenting brethren in preaching a Tuesday evening lecture at the Old Jewry. Acquainted probably with the direction of his studies, they appointed him to preach on the proof of the *Credibility of the Gospel History*. This he discussed, we are told, in two sermons; and prosecuting the subject which he had taken up in these discourses, in February 1727, he published, in two volumes octavo, *the First Part of* "The Credibility of the Gospel History, or the Facts OCCASIONALLY mentioned in the New Testament, confirmed by Passages of Ancient Authors who were contemporary with our Saviour or his Apostles, or lived near their Time." An *Appendix* was subjoined, relating to the time of Herod's death.

Lardner.

Thus Mr Lardner commenced author, and began his literary career with singular reputation. "It is scarcely necessary to say (observes Dr Kippis), how well this work was received by the learned world. Not only was it highly approved by the Protestant Dissenters, with whom the author was more immediately connected, but by the clergy in general of the established church; and its reputation gradually extended into foreign countries. It is indeed an invaluable performance, and hath rendered the most essential service to the cause of Christianity. Whoever peruses this work (and to him that does not peruse it, it will be to his own loss) will find it replete with admirable instruction, sound learning, and just and candid criticism." These two, with the subsequent fifteen, volumes octavo, and the four thin quartos entitled *Jewish and Heathen Testimonies*, occupied him, with the interruption arising from some smaller productions, during the space of *forty-three years*.

Dr Kippis gives us a particular account of the time when each volume was published, and of the subjects discussed in each. The following useful information which the doctor introduces, in speaking of the "*Supplement* to the Credibility," deserves well to be transcribed. "I cannot avoid strongly recommending this work (says he) to the attention of all young divines. Indeed, I think that it ought to be read by every theological student before he quits the university or academy in which he is educated. There are three other works which will be found of eminent advantage to those who are intended for, or beginning to engage in, the Christian ministry. These are, Butler's Analogy, Bishop Law's Considerations on the Theory of Religion, and Dr Taylor's Key to the Apostolical Writings, prefixed to his Paraphrase on the Epistle to the Romans. Without agreeing with every circumstance advanced in these works, it may be said of them with the greatest truth, that they tend to open and enlarge the mind; that they give important views of the evidence, nature, and design of revelation; and that they display a vein of reasoning and inquiry which may be extended to other objects besides those immediately considered in the books themselves.—It must not be forgotten, that the Supplement to the Credibility has a place in the excellent collection of treatises in divinity which has lately been published by Dr Watson bishop of Landaff. For a collection which cannot fail of being eminently conducive to the instruction and improvement of younger clergymen, and for the noble, manly, and truly evangelical preface by which it is preceded,

Lardner || Lares.

ceded, this great prelate is entitled to the gratitude of the Christian world." It may not be improper to add, that the *Supplement to the Credibility* was some years ago, published separately by the booksellers, under the title of *The History of the Gospels and Epistles.*

Applauded as Dr Lardner's works were, he received little recompense for them. Some of the latter volumes of the Credibility were published at a loss; and at last he sold the copy-right and all the remaining printed copies to the booksellers, for the trifling sum of 150l. His object, however, was not private emolument, but to serve the interests of truth and virtue; and it pleased Divine Providence to spare his life, both to complete his extensive plan, and to see the last volume, the 4th of the *Testimonies*, published. This was in 1767. He was seized with a decline in the summer following; and was carried off in a few days at Hawkhurst the place of his nativity, where he had a small paternal estate. He died in the 85th year of his age.

LAREDO, a sea port town of Spain, in the bay of Biscay, with a large safe harbour. It is 30 miles west of Bilboa, and 72 north by west of Burgos. W. Long. 3. 45. N. Lat. 43. 23.

LARENTINALIA, in antiquity, a feast held among the Romans on the 23d day of December, but ordered to be observed twice a year by Augustus; by some supposed to have been in honour of the Lares, but by others, with more probability, in honour of Acca Laurentia; and to have been the same with Laurentalia.

LARES, among the ancients, derived by Apuleius (*De Deo Socratis*), from *lar, familiaris;* a kind of domestic genii, or divinities, worshipped in houses, and esteemed the guardians and protectors of families; supposed to reside more immediately in the chimney corner.

The Lares were distinguished from the Penates: as the former were supposed to preside over housekeeping, the servants in families, and domestic affairs; and the latter were the protectors of the masters of families, their wives and children. Accordingly the Lares were dressed in short succinct habits, to show their readiness to serve; and they held a sort of cornucopia in their hands, as a signal of hospitality and good housekeeping. According to Ovid, there were generally two of them, who were sometimes represented with a dog at their feet.

Plutarch distinguishes good and evil Lares, as he had before done good and evil Genii. There are also some public, others private Lares.

Apuleius tells us the domestic Lares were no more than the souls of departed persons, who had lived well, and discharged the duties of their station; whereas those who had done otherwise, were vagabonds, wandering about and frightening people, called *Larvæ* and *Lemures.*

The Lares were also called *Penates*, and were worshipped under the figures of little marmousets, or images of wax, silver, or earthen ware.

The public Lares were also called *Compitales*, from *compitum*, "a cross way;" and *Viales*, from *via*, "a way or public road;" as being placed at the meetings of roads and in the high ways, and esteemed the patrons and protectors of travellers.

The private Lares took care of particular houses and families: these they also called *Præstites* from *præsto;* Lares.

Quod præstant oculis omnia tuta suis. OVID. Fast.

They gave the name *Urbani*, i. e. "Lares of cities," to those who had cities under their care; and *Hostilii*, to those who were to keep their enemies off. There were also Lares of the country, called *Rurales*, as appears by several antique inscriptions.

The Lares were also genial gods, and were supposed to take care of children from their birth. It is for this reason that when Macrobius tells us the Egyptians had four gods who presided over the births of children, viz. the Genius, Fortune, Love, and Necessity, called *præstites*, some interpret him as if he had said the Egyptians had Lares; but they have mentioned that there was a great difference between the Lares of the Romans and the Præstites of the Egyptians. However, the learned Mr Bryant affirms that they were the same.

The ancients differ extremely about the origin of the Lares. Varro and Macrobius say that they were the children of Mania; Ovid makes them the issue of Mercury, and the Naiad Lara or Larunda; Apuleius assures us they were the posterity of the Lemures; Nigridius, according to Arnobius, made them sometimes the guardians and protectors of houses, and sometimes the same with the Curetes of Samothracia, which the Greeks call *Idæi dactyli.* Nor was Varro more consistent in his opinion of these gods; sometimes making them the manes of heroes, and sometimes gods of the air.

T. Tatius king of the Sabines was the first who built a temple to the Lares. The chimney and fireplace in the house were particularly consecrated to them.

Tertullian tells us the custom of worshipping the Lares arose from this, that they anciently interred their dead in their houses; whence the credulous people took occasion to imagine their souls continued there also, and proceeded to pay them divine honours. To this it may be added, that the custom being afterwards introduced of burying in the high ways, they might hence take occasion to regard them as gods of the high ways.

The victim offered to the Lares in the public sacrifices was a hog: in private, they offered them wine, incense, a crown of wool, and a little of what was left at the table. They also crowned them with flowers, particularly the violet, myrtle, and rosemary. Their symbol was a dog, which was usually represented by their side, on account of its fidelity and the service it does to a man in watching his house. They were sometimes also represented as clothed in a dog's skin.

The term *Lares*, according to Mr Bryant, was formed from *laren*, an ancient word by which the ark was represented: and he supposes that the Lares and Manes were the same domestic deities under different names; and that by these terms the Hetrurians and Latins denoted the *dii arkitæ*, who were no other than their arkite ancestors, or the persons preserved in the laren or ark; the genius of which was Isis, the reputed parent of the world. He observes farther, that they are described as dæmons and genii, who once lived on earth, and were gifted with immortality. Arnobius,

Lares ‖ Largs.

bius style them *Lares quosdam genios et functorum animas;* and he says, that according to Varro, they were the children of Mania. Huetius (Demonst. Prop. iv. p. 139.) adds, that Mania had also the name of *Larunda;* and she is styled the mother of the dæmons. By some she is called *Lara*, and was supposed to preside over families; and children were offered at her altar in order to procure her favour. In lieu of these they in after times offered the heads of poppies and pods of garlic.

LARGE, a sea term applied to the wind when it crosses the line of a ship's course in a favourable direction, particularly on the beam or quarter. Thus, if a ship steers west, then the wind in any point of the compass to the eastward of the south or north may be called *large*, unless when it is directly east, and then it is said to be right aft. Sailing large is, therefore, advancing with a large wind, so as that the sheets are slackened and flowing, and the bow lines entirely disused. This phrase is generally opposed to sailing close hauled.

LARGESS. See LARGITIO.

LARGITIO, in Roman antiquity, was a distribution of corn, provision, clothes, money, &c. to the people. Gracchus, when tribune, to make himself popular, passed a law for supplying the Roman citizens with corn at a very low rate, out of the public granaries. Claudius, another tribune, with the same views to popular applause, procured it to be distributed *gratis*.—Cato, to win the common people from Cæsar, persuaded the senate to do the same, and 300,000 citizens shared in the distribution. Cæsar, after his triumph, extended his bounty to 150,000, giving them each a *mina*. The Roman emperors enlarged still further the list of those who were to partake of their distributions. Largitio is frequently taken in a bad seuse, to signify a masked bribery; whereby candidates purchased votes, when they stood for places of honour or trust in the state. The distribution of money was called *congiarium*, and the distributors *divisores* and *sequestres*.

LARGS, a village on the west coast of Scotland, opposite to the island of Bute; rendered memorable by the defeat of the Norwegians here in their last invasion of this country.—This invasion was made in the year 1263, with a fleet of 160 sail and an army of 20,000 men, commanded by Haquin king of Norway, whose ravages on the coast of Ayr, Bute, and Arran, reaching the Scottish court, an army was immediately assembled by Alexander III. and a bloody engagement ensued at this village, when 16,000 of the invaders were slain in the battle and flight, with 5000 Scots. Haquin escaped to the Orkneys, where he soon after died of grief. The intrenchments of the Norwegian camp may still be traced along the shore of this place. The Scottish commanders who fell in battle were buried in a rising field, near the village; three or four persons were interred in one grave, on each side of which was a large stone, a third was placed across the grave, supported at the extremities by the side stones, and in this rude manner the warriors lay entombed. Some years ago the proprietor of the field demolished these repositories of the dead, leaving only one (a special favour!) which serves to give an idea of the whole.

LARINO, a town of Italy, in the kingdom of Naples, in the Capitanata, with a bishop's see. E. Long. 15. 51. N. Lat. 41. 48.

Larino ‖ Larribundar.

LARISSA, an ancient, rich, and celebrated town of Greece, in the province of Janna or Thessaly, with an archbishop's see of the Greek church, a palace and several handsome mosques. According to Virgil, it was the country of Achilles. It was also the place where Philip the father of Alexander the Great resided.—The inhabitants, amounting to 20,000, carry on a considerable trade. The city is agreeably seated on the river Peneus. E. Long. 23. 36. N. Lat. 38. 51.

LARIX, the LARCH TREE. See PINUS, BOTANY *Index*.

LARK. See ALAUDA, ORNITHOLOGY *Index*, and *BIRD-Catching*.

The lark is not only a very agreeable bird for the cage, but will live upon almost any food, so that it have once a week a fresh tuft of three-leaved grass. The proper method of keeping them in health is this: there must be two pans of food, the one containing meat, the other oat meal and hempseed. A very good food is the following: boil an egg very hard, to which add the crumb of a halfpenny loaf, and as much hempseed: let the egg be chopped very small, and the hempseed bruised in the mortar; when these are mixed, the bread is to be crumbled in among the rest, and the whole to be rolled together with a common rolling pin, and kept for use. There must be some fine small gravel strewed at the bottom of the cage, and renewed at farthest once in a week. This will prevent the bird's feet from getting hurt by being clogged with the dung; and his basking in this will keep him also from growing lousy, after which few come to good. There must be a perch in the cage, and it must either be lined with green bays, or made of fine matting, which the lark is very fond of. When the bird is first taken, some meat must be strewed upon the sand in the bottom of the cage; for it will be sometimes almost famished before it finds the meat in the pan.

The cock bird of this kind is known from the hen by the loudness and length of his call, by his tallness as he walks about the cage, and by his doubling his notes in the evening, as if he was going with his mate to roost. A better rule than all others, however, is his singing strong; for the hen wood lark sings but very weakly.—Both the cock and hen of this kind are subject to many disorders; the principal of these are cramps, giddiness of the head, and breeding lice. Cleanliness is the best cure for the first and the last of these complaints; but we know of no cure for the other. A good strong bird, however, will often last very well five or six years, and improve all the time.

LARKSPUR. See DELPHINIUM, BOTANY *Index*.

LARMIER, in *Architecture*, a flat square member of the cornice below the cimasium, and jets out farthest; being so called from its use, which is to disperse the water, and cause it to fall at a distance from the wall, drop by drop, or as if by tears, the French word *larm*, signifying a tear.

LARRIBUNDAR, a sea port town of Asia, in Indostan; seated at the mouth of the river Sinda, or Indus, with a harbour capable of receiving ships of

Larribundar ‖ Lassitude.

200 tons burden. It is but a small place, consisting of about 100 houses built of wood; but has a stone fort, with a few guns. E. Long. 67. 0. N. Lat. 25. 0.

LARVA, in *Natural History*, a name given by Linnæus to insects in that state, called by other writers *eruca* or *caterpillar*. See ENTOMOLOGY *Index*.

LARVÆ, in antiquity, derived from the Hetruscan word *lar* or *lars*, signifying "prince or lord," denoted the ghosts of the deceased, considered as wicked and mischievous. Hence is formed the term *larvatus*, i. e. *larvâ indutus* or *demoniac*. The ingenious Mr Farmer urges the etymology and use of this term to prove, that the heathen demons were human ghosts.—The larvæ were also called *lemures*.

LARUS, the GULL, a genus of birds belonging to the order of anseres. See ORNITHOLOGY *Index*.

LARYNX, in *Anatomy*, the upper part of the windpipe. See ANATOMY, N° 116.

LASCARIS, ANDREW JOHN, surnamed *Ryndaccnus*, of an ancient Greek family, went into Italy, after the taking of Constantinople by the Turks in 1453. He was well received by Laurence de Medicis, a distinguished protector of learned men; and was twice sent to Constantinople to collect the best Greek manuscripts, by which means numberless scarce and valuable treasures of literature were carried into Italy. At his return, Louis XII. king of France prevailed on him to settle in the university of Paris, and sent him twice ambassador to Venice. Ten years after, Cardinal John de Medicis being elected pope, under the name of *Leo X.* John Lascaris, his old friend, went to Rome, and had the direction of a Greek college. He died at Rome in 1535, at about the 90th year of his age. He brought into the west most of the fine Greek manuscripts that are now extant, and composed some epigrams in Greek and Latin.

LASCARIS, *Constantine*, one of the Greeks who were principally concerned in the revival of learning in the West, retired into Italy in 1454, and taught polite literature at Milan, whither he was called by Francis Sforza; he afterwards went to Rome, where he was well received by Cardinal Bessarion. He afterwards taught rhetoric and the Greek tongue at Naples; and ended his days at Messina, leaving the senate of that city many excellent manuscripts which he had brought from Constantinople. He was interred at the public expence, and the senate of Messina erected a marble tomb to his memory. He wrote some grammatical works.

LASERPITIUM, LAZAR-WORT, a genus of plants belonging to the pentandria class; and in the natural method ranking under the 45th order, *Umbellatæ*. See BOTANY *Index*.

LASH, or LACE, in the sea language, signifies to bind and make fast; as, to lash the bonnet to the course, or the drabbler to the bonnets; also the carpenter takes care that the spare yards be lashed fast to the ship's side; and in a rolling sea, the gunners mind that the guns be well lashed, lest they should break loose. Lashers are properly those ropes which bind fast the tackles and the breechings of the ordnance, when hauled or made fast within board.

LASSITUDE, or WEARINESS, in *Medicine*, a morbid sensation, that comes on spontaneously, without any previous motion, exercise, or labour. This is a frequent symptom in acute distempers: it arises either from an increase of bulk, a diminution of proper evacuation, or too great a consumption of the fluids necessary to maintain the spring of the solids, or from a vitiated secretion of that juice. Lassitude ‖ Latere.

LASSUS, or LASUS, a dithyrambic poet, born at Hermione in Peloponnesus about 500 years before Christ. He is reckoned among the wise men of Greece by some. He is particularly known by the answer he gave to a man who asked him what could best render life pleasant and comfortable? Experience. He was acquainted with music. Some fragments of his poetry are to be found in Athenæus. He wrote an ode upon the Centaurs, and a hymn to Ceres, without inserting the letter S in the composition.

LAST, in general, signifies the burden or load of a ship. It signifies also a certain measure of fish, corn, wool, leather, &c. A last of codfish, white herrings, meal, and ashes for soap, is twelve barrels; of corn or rapeseed, ten quarters; of gunpowder, twenty-four barrels; of red herrings, twenty cades; of hides, twelve dozen; of leather, twenty dickers; of pitch and tar, fourteen barrels; of wool, twelve sacks; of stock fish, one thousand; of flax or feathers, 1700lb.

LASTAGE, or LESTAGE, a duty exacted in some fairs and markets, for carrying things bought whither one will. It signifies also the ballast or lading of a ship; and sometimes is used for garbage, rubbish, or such like filth.

LATERAN was originally the proper name of a man; whence it descended to an ancient palace in Rome, and to the buildings since erected in its place; particularly a church called *St John of Lateran*, which is the principal see of the popedom.

Councils of the LATERAN, are those held in the basilica of the Lateran; of these there have been five, held in 1123, 1139, 1179, 1215, and 1513.

Canons Regular of the Congregation of the LATERAN, is a congregation of regular canons; whereof that church is the principal place or seat.

It is pretended there has been an uninterrupted succession of clerks, living in community, from the time of the apostles; and that a number of these were established in the Lateran in the time of Constantine. But the canons were not introduced till the time of Leo I. and these held the church 800 years, till the reign of Boniface, who took it from them, and placed secular canons in their room: 150 years after, the regulars were reinstated.

A LATERE, a term used to denote the qualifications of the cardinals whom the pope sends as legates into foreign countries. They are called *legates à latere*, as being his holines's assistants and counsellors in ordinary. These are the most considerable of the other three kinds of legates, being such as the pope commissions to take his place in councils; and so called, in regard that he never gives this office to any but his favourites and confidants, who are always *à latere*, at his side. A legate à latere has the power of conferring benefices without a mandate, of legitimating bastards to hold offices, and has a cross carried before him as the ensign of his authority.

De LATERE, legates who are not cardinals, but yet are intrusted with an apostolical legation. See the article LEGATE.

LATE-WAKE,

Late-Wake || Lathræa.

LATE-WAKE, a ceremony used at funerals in the Highlands of Scotland. The evening after the death of any person, the relations and friends of the deceased meet at the house, attended by a bagpipe or fiddle; the nearest of kin, be it wife, son, or daughter, opens a melancholy ball, dancing, and *greeting* (i. e. crying violently) at the same time, and this continues till day light; but with such gambols and frolics among the younger part of the company, that the loss which occasioned them is often more than supplied by the consequences of that night. If the corpse remains unburied for two nights, the same rites are renewed. Thus, Scythian like, they rejnice at the deliverance of their friends out of this life of misery.

LATEEN SAIL, a long triangular sail extended by a lateen yard, and frequently used by xebecs, polacres, setees, and other vessels navigated in the Mediterranean sea.

LATH, in building, a long, thin, and narrow slip nf wood nailed to the rafters of a roof or ceiling, in order to sustain the covering.

Lath-Bricks, a particular sort of bricks made in some parts of England, of 22 inches in length and 6 in breadth, which are used in the place of laths or spars, supported by pillars in casts, for the drying of malt. This is an excellent contrivance; for besides that they are not liable to fire, as the wooden laths are, they retain the heat vastly better; so that being once heated, a very small quantity of fire will serve to keep them so.

LATHE, a very useful engine for the turning of wood, ivory, metals, and other materials. The invention of the lathe is very ancient; Diodorus Siculus says, the first who used it was a grandson of Dædalus, named Talus. Pliny ascribes it to Theodore of Samos; and mentions one Thericles, who rendered himself very famous by his dexterity in managing the lathe. With this instrument the ancients turned all kinds of vases, many whereof they enriched with figures and ornaments in basso relievo. Thus Virgil:

Lenta quibus torno facili superaddita vitis.

The Greek and Latin authors make frequent mention of the lathe; and Cicero calls the workmen who used it *vascularii*. It was a proverb among the ancients, to say a thing was formed in the lathe, to express its delicacy and justness.

The lathe is composed of two wooden cheeks or sides, parallel to the horizon, having a grnove or opening between; perpendicular to these are two other pieces called *puppets*, made to slide between the cheeks, and to be fixed down at any point at pleasure. These have two pnints, between which the piece to be turned is sustained; the piece is turned round, backwards and forwards by means of a string put round it, and fastened above to the end of a pliable pole, and underneath to a treadle or board moved with the foot. There is also a rest which bears up the tool, and keeps it steady.

As it is the use and application of this instrument that makes the greatest part of the art of turning, we refer the particular description thereof, as well as the manner of applying it in various works, to that head. See TURNING.

LATHRÆA, a genus of plants belonging to the didynamia class; and in the natural method ranking under the 40th order, *Personatæ*. See BOTANY *Index*.

Lathræa || Latimer.

LATHREVE, LEIDGREVE, or TRITHENGREVE, was an officer under the Saxon government, who had authority over a third part of the county; and whose territory was therefore called *trithing*, otherwise a *leid* or *leithin*, in which manner the county of Kent is still divided; and the rapes in Sussex seem to answer to the same. As to the jurisdiction of this officer, those matters that could not be determined in the hundred court, were thence brought to the trithing; where all the principal men of the three or more hundreds being assembled by the *lathreve*, or *trithingreve*, did debate and decide it; or if they could not, then the *lathreve* sent it up to the county court, to be there finally determined.

LATHYRUS, CHICKLING, a genus of plants belonging to the diadelphia class; and in the natural method ranking under the 32d order, *Papilionaceæ*. See BOTANY *Index*.

LATIAR, in Roman antiquity, a feast or ceremony instituted by Tarquinius Superbus, in honour of Jupiter Latiaris or Latialis.——Tarqnin having made a treaty of alliance with the Latins, proposed, in order for perpetuating it, to erect a common temple, where all the allies, the Romans, Latins, Hernici, Volsci, &c. should assemble themselves every year, hold a kind of fair, exchange merchandises, feast, sacrifice, and make merry together. Such was the institution of the Latiar. The founder only appointed one day for this feast: the first consul added another to it, upon concluding the peace with the Latins; and a third was added after the people who had retired to the Mons Sacer were returned to Rome: and a fourth, after appeasing the sedition raised on occasion of the plebeians aspiring to the consulate.

These four days were called the *Latin feriæ;* and all things done during the course of the feriæ, as feasts, sacrifices, offerings, &c. were called *Latiares*.

LATICLAVE, (*Laticlavium*), in Roman antiquity, was an honourable distinction, peculiar, in the times of the republic, to the senators: but whether it was a particular kind of garment, or only an ornament upon it, the critics are not agreed: But the more general opinion is, that it was a broad stripe of purple sewed upon the fore part of their tunic, and round the middle of the breast. There were buttons set on the *latus clavus* or *laticlave*, which appeared like the heads of large nails, whence some think it derived its name. —The senators, prætors, and chief magistrates of colonies and municipal cities had a right tn wear it. The prætexta was always worn over it; but when the prætor pronounced sentence of death, the prætexta was then put off and the laticlave retained. The *laticlavium* differed from the *angusticlavium*, but authors do not agree in what this difference consisted; the most general opinion seems to be, that the slips or stripes of purple were narrower in the angusticlave.

LATIMER, HUGH, bishop of Worcester, was born abnut the year 1480 at Thurcaston in Leicestershire, the only son of a yeoman of that village. At the age of fourteen he was sent to Christ's college, Cambridge, where he applied himself to the study of divinity, and in proper time tonk the degree of bachelor in that science. At this time he was a zealous

Latimer, Latin,

Papist, and was honoured with the office of keeper of the cross to the university: but when he was about thirty years of age, he became a convert to the Protestant religion; and being now one of the twelve licensed preachers from Cambridge, he promulgated his opinions with great freedom. It was not long before he was accused of heresy; and being summoned before Cardinal Wolsey, was obliged to subscribe certain articles of faith, which he certainly did not believe. About the year 1529 he was presented by the king to the rectory of Westkinton in Wiltshire; to which place, after residing some time at court with his friend and patron Dr Butts, he retired; but resuming his former invectives against the Popish doctrines, he was again summoned to answer certain interrogatories, and again obliged to subscribe. In 1535 he was promoted to the bishopric of Worcester; in the possession of which dignity he continued till the year 1539, when, rather than assent to the act of the six articles, he resigned his mitre, and retired into the country; but was in a short time accused of speaking against the six articles, and committed to the Tower, where he continued prisoner till the death of Henry VIII. which happened in January 1547. On the accession of Edward VI. Latimer was released, but not restored to his bishopric, though he preached several times before the king, and continued to exercise his ministerial function with unremitting zeal and resolution. Young Edward, alas! finished his short reign in 1553; and Mary, of infamous memory, ascending the throne, poor Latimer was immediately doomed to destruction, and, together with Cranmer and Ridley, confined in the Tower. In April 1554, they were removed to Oxford, that they might dispute with the learned doctors of both universities. Latimer declining the disputation on account of his great age and infirmities, delivered his opinion in writing; and refusing to subscribe the Popish creed, was condemned for heresy; and in October following was, together with Bishop Ridley, burnt alive. He behaved with uncommon fortitude on the occasion, and died a real martyr to the Reformation. His general character is that of a learned, virtuous, and brave man. His works are, 1. Sermons, 1635, fol. 2. Letters; in Fox's Acts and Monuments, vol. ii. fol. 1580. 3. An Injunction to the Prior and Convent of St Mary's in Worcestershire. See record at the end of Burnet's History of the Reformation, part ii. p. 293.

LATIN, a dead language, first spoken in Latium, and afterwards at Rome; and still used in the Romish church, and among many of the learned.

This language is principally derived from the Greek, and particularly from the Eolic dialect of that tongue, though it has a great number of words which it borrowed from the languages of the Etrusci, Osci, and other ancient people of Italy; and foreign commerce and wars, in course of time, added a great many more.

The Latin is a strong nervous language, perfectly suitable to the character of the people who spoke it: we have still works of every kind admirably well written in the Latin, though there are vast numbers lost.

The Latin tongue was for a while confined almost wholly within the walls of Rome; nor would the Romans allow the common use of it to their neighbours, or to the nations they subdued; but by degrees they in time became sensible of the necessity of its being generally understood for the conveniency of commerce; and accordingly used their endeavours, that all the nations subject to their empire should be united by one common language; so that at length they imposed the use of it by a particular law for that purpose. After the translation of the seat of the empire from Rome to Constantinople, the emperors of the east, being always desirous of retaining the title of Roman emperors, appointed the Latin to be still used; but at length neglecting the empire of the west, they abandoned all care of the Latin tongue, and used the Greek. Charlemagne coming to the empire of the west, revived this language; but at length it gave way, and the French took place of the Latin; it was, however, prodigiously degenerated before it came to be laid aside, in which condition it was found at the time of the Reformation, when Vives, Erasmus, &c. began to open the way for its recovery: since which time the monkish latinity has been declining, and all endeavours have been used to retrieve the pure language of the Augustan age. See LANGUAGE.

Latin Latium.

LATIN Church. See CHURCH.

LATINS, an ancient nation of Italy. See LATIUM.

LATINUS, king of the Latins in Italy, was the son of Faunus; and, it is said, began to reign about the 1216th year before the Christian era. Lavinia, his only daughter, married Æneas, after that Trojan prince had killed Turnus king of the Rutuli. See ROME.

LATISSIMUS, in *Anatomy*, the name of several muscles. See ANATOMY, *Table of the Muscles*.

LATITUDE, in *Astronomy*, is the distance of a star north or south from the ecliptic. In geography it signifies the distance of any place north or south from the equator. See ASTRONOMY, and GEOGRAPHY, *passim*.

LATITUDINARIAN, a person of moderation with regard to religious opinions, who believes there is a latitude in the road to heaven, which may admit people of different persuasions.

LATIUM, in *Ancient Geography*, the country of the Latins, at first contained within very narrow bounds, but afterwards increased by the accession of various people. The appellation, according to Virgil, is *à latendo*, from Saturn's lying hid there from the hostile pursuits of his son Jupiter; and from *Latium* comes the name *Latini*, the people (Virgil): though Dionysius Halicarnassæus derives it from King Latinus, who reigned about the time of the Trojan war. But whatever be in this, it is certain, that Latium, when under Æneas and his descendants, or the Alban kings, contained only the Latins, exclusive of the Æqui, Volsci, Hernici, and other people; only that Æneas reckoned the Rutuli, after their conquest, among the Latins. And this constituted the ancient *Latium*, confined to the Latins; but afterwards, under the kings, and after their time, it reached from the Tiber to Circeii. Under the consuls, the country of the Æqui, Volsci, Hernici, &c. after long and bloody wars, was added to Latium, under the appellation *adjectitious* or *superadded Latium*, as far as the river Liris, the eastern boundary, and to the north as far as the Marsi and Sabines. The various people, which in succession occupied

Latium ‖ Latria.

pied Latium, were the Aborigines, the Pelasgi, the Arcades, the Siculi, the Arunci, the Rutuli; and beyond Circeii, the Volsci, the Osci, the Ausones: but who first, who next, occupied the country, it is difficult to say.

LATMUS, in *Ancient Geography*, a mountain of Ionia, or on the confines of Caria, famous for the fable of Endymion, of whom the Moon was said to be enamoured: hence called *Latmius Heros*, and *Latmius Venator*. In the mountain was a cave in which Endymion dwelt (Scholiast on Apollonius Rhodius). Supposed by Hecatæus to be the *Phtheiron Mons* of Homer; but by others to be *Grius Mons*, not far from Latmus (Strabo).

LATOMIA, properly signifies a *stone quarry*: But the places whence stones had been dug having been made use of sometimes as dungeons, jails, or prisons for criminals, it is oftentimes applied as a name for a prison. There was a place of confinement of this sort at Rome, near the Tullianum; another at Syracuse, in which Cicero says Verres had shut up Roman citizens.

LATONA, in *Mythology*, a Pagan goddess, whose history is very obscure. Hesiod makes her the daughter of Titan Coëus and Phœbe his sister. She was admired for her beauty, and celebrated for the favours which she granted to Jupiter. Juno, always jealous of her husband's amours, made Latona the object of her vengeance, and sent the serpent Python to disturb her peace and persecute her. Latona wandered from place to place in the time of her pregnancy, continually alarmed for fear of Python. She was driven from heaven; and Terra, influenced by Juno, refused to give her a place where she might rest and bring forth. Neptune, moved with compassion, struck with his trident and made immoveable the island of Delos, which before wandered in the Ægean, and appeared sometimes above, and sometimes below, the surface of the sea. Latona, changed into a quail by Jupiter, came to Delos; where she resumed her original shape, and gave birth to Apollo and Diana, leaning against a palm tree or an olive. Her repose was of short duration: Juno discovered the place of her retreat, and obliged her to fly from Delos. She wandered over the greatest part of the world; and in Caria, where her fatigue compelled her to stop, she was insulted and ridiculed by the peasants, of whom she asked for water while they were weeding a marsh. Their refusal and insolence provoked her, and she entreated Jupiter to punish their barbarity. They were all changed into frogs. She was also insulted by Niobe; who boasted herself greater than the mother of Apollo and Diana, and ridiculed the presents which the piety of her neighbours had offered to Latona. At last, Latona, though persecuted and exposed to the resentment of Juno, became a powerful deity, and saw her children receive divine honours. Her worship was generally established where her children received adoration; particularly at Argos, Delos, &c. where she had temples. She had an oracle at Egypt, celebrated for the true and decisive answers which it gave. Latona, Venus, and Diana, were the three goddesses most in veneration among the Roman women.

LATRIA, in *Theology*, a religious worship due only to God. See ADORATION.

The Romanists say, "They honour God with the worship of *latria*, and the saints with the worship of *dulia*." But the terms, however distinct, are usually confounded. Latria ‖ Latten.

The worship of *latria*, besides its inner characters, has its external marks to distinguish it; the principal whereof is sacrifice, which cannot be offered to any other but God himself, as being a solemn acknowledgement or recognition of the sovereignty of God, and our dependence on him.

Mr Daille seems to own, that some of the fathers of the fourth century allowed the distinction between *latria* and *dulia*.

LATRINÆ, were public houses of office, or necessaries, amongst the Romans. We do not find, in the writings or buildings that remain of antiquity, that they had any privies in their dwellings. The latrinæ were public places where the slaves washed and emptied their masters close stools. We are pretty well assured that the Romans had public places of convenience, which were covered over, and had a sponge hanging up in them for cleanliness. Rich men had close stools, which were taken away occasionally to the common sewers.

LATRUNCULI, a game amongst the Romans, of much the same nature with our chess. The *latrunculi* were properly the chess men, called also *latrones* and *calculi*. They were made of glass, and distinguished by black and white colours. Sometimes they were made of wax or other convenient substances. Some give the invention of this game to Palamedes when at the siege of Troy: Seneca attributes it to Chilon, one of the seven Grecian sages; others honour Pyrrhus with the invention; and others again contend that it is of Persian origin—but is not this *Lis de lana caprina?* Frequent allusions to this game are met with in the Roman classics, and a little poem was written upon it, addressed to Piso, which some say was the work of Ovid, others of Lucan, in the end of some editions of whose works it is to be found, and to which we refer for a fuller account of the game. This game expresses so well the chance and order of war, that it is, with great appearance of probability, attributed to some military officer as the inventor. One Canius Julius was so exceedingly fond of chess, that after he was sentenced to death by Caligula, he was found playing, but interrupted in his game by a call to execution; he obeyed the summons, but first desired the centurion who brought the fatal order, to bear witness that he had one man upon the board more than his antagonist, that he might not falsely brag of victory when he should be no more.

LATTEN denotes iron plates tinned over, of which tea canisters are made.

Plates of iron being prepared of a proper thinness, are smoothed by rusting them in an acid liquor, as common water made eager with rye. With this liquor they fill certain troughs, and then put in the plates, which they turn once or twice a day, that they may be equally rusted over. After this they are taken out, and well scoured with sand; and, to prevent their rusting again, are immediately plunged into pure water, in which they are to be left till the instant they are to be tinned or blanched; the manner of doing which is this: They flux the tin in a large iron crucible, which

has

Latten. Lattimo.

has the figure of an oblong pyramid with four faces, of which two opposite ones are less than the two others. The crucible is heated only from below, its upper part being luted with the furnace all round. The crucible is always deeper than the plates which are to be tinned are long; they always put them in downright, and the tin ought to swim over them; to this purpose artificers of different trades prepare plates of different shapes, though Mr Reaumur thinks them all exceptionable. But the Germans use no sort of preparation of the iron to make it receive the tin, more than the keeping it always steeped in water till the time; only when the tin is melted in the crucible, they cover it with a layer of a sort of suet, which is usually two inches thick, and the plate must pass through this before it can come to the melted tin. The first use of this covering is to keep the tin from burning; for if any part should take fire, the suet would soon moisten it, and reduce it to its primitive state again. The blanchers say, this suet is a compounded matter. It is indeed of a black colour; but Mr Reaumur supposed that to be only an artifice to make it a secret, and that it is only coloured with soot or the smoke of a chimney: but he found it true so far, that the common unprepared suet was not sufficient; for after several attempts, there was always something wanting to render the success of the operation certain. The whole secret of blanching, therefore, was found to lie in the preparation of this suet; and this at length he discovered to consist only in the first frying and burning it. This simple operation not only gives it the colour, but puts it in a condition to give the iron a disposition to be tinned, which it does surprisingly.

The melted tin must also have a certain degree of heat: for if it is not hot enough, it will not stick to the iron; and if it is too hot, it will cover it with too thin a coat, and the plates will have several colours, as red, blue, and purple, and upon the whole will have a cast of yellow. To prevent this, by knowing when the fire has a proper degree of heat, they might try with small pieces of iron; but, in general, use teaches them to know the degree, and they put in the iron when the tin is at a different standard of heat, according as they would give it a thicker or thinner coat. Sometimes also they give the plates a double layer, as they would have them very thickly covered. This they do by dipping them into the tin when very hot the first time, and when less hot the second. The tin which is to give the second coat must be fresh covered with suet; and that with the common suet, not the prepared.

Latten Brass, plates of milled brass reduced to different thickness, according to the uses they are intended for.

LATTIMO, in the glass trade, a name for a fine milk-white glass. There are several ways of making it, but the best of all is this: take 400 weight of crystal frit, 60 pounds of calcined tin, and two pounds and a half of prepared manganese; mix these well with the frit, and set them in a pot in a furnace to melt and refine. At the end of 18 hours this will be purified; then cast it into water, purify it again afterwards in the furnace, and make a proof of it. If it be too clear, add 15 pounds more of calcined tin; mix it well with the metal, and let it stand one day to purify; it will then be pf a whiteness surpassing even that of snow, and is fit to work into vessels.

Lattimo || Lava.

LATUS Primarium, a right line drawn through the vertex of the section of a cone, within the same, and parallel to the base.

Latus Transversum of the hyperbola, is the right line between the vertices of the two opposite sections, or that part of their common axis lying between the two opposite cones.

LAVA, a stream of melted minerals which runs out of the mouths, or bursts out through the sides, of burning mountains, during the time of an eruption. See Ætna, Vesuvius, Hecla; and see also Volcano, Geology *Index*.

The lava at its first discharge is in a state of prodigious ignition, greatly superior to any thing we can have an idea of from the small artificial furnaces made by us. Sir William Hamilton informs us, that the lava of Vesuvius, at the place whence it issued (in the year 1767), "had the appearance of a river of red hot and liquid metal, such as we see in the glass houses, on which were large floating cinders half lighted, and rolling over one another with great precipitation down the side of the mountain, forming on the whole a most beautiful and uncommon cascade." Now, if we consider the materials of which the lava consists, which undoubtedly are the common matters to be found everywhere in the earth, namely, stones, metallic ores, clay, sand, &c. we shall find that our hottest furnaces would by no means be able to bring them into any degree of fusion; since the materials for glass cannot be melted without a great quantity of very fusible salts, such as alkalies, nitre, &c. mixed along with them. The heat of a volcano must therefore be immense; and besides its heat, it is sometimes attended with a very uncommon circumstance; for Sir William Hamilton informs us, that "the red-hot stones thrown up by Vesuvius on the 31st of March 1766, were perfectly *transparent*;" and the like remark he makes on the vast stream of lava which issued from the same volcano in 1779. This we cannot look upon to be the mere effect of heat; for mere heat with us will not make a solid body transparent; and these stones, we are sure, were not in a state of fusion, or the resistance of the air would have broke them all to pieces, even supposing them, which is very improbable, to have been in that state detached from the rest of the lava. For the transparency, therefore, (according to some authors) we must have recourse to electricity; which in some of our experiments hath the property of rendering opaque bodies transparent *. Indeed it is scarcely possible but the lava and every other matter thrown out of a volcano must be in the highest degree electrical, if the fire itself takes its rise from electricity.

1 Excessive heat of lavas.

* See *Electricity Index*.

2 Probably in a high electrical state also.

The lava, after having once broke out, does not constantly continue running from the same vent, but often has intermissions, after which it will burst out sometimes at the same place, and sometimes at another. No real flame ever appears to come from the lava. In the day time its progress is marked by a thick white smoke, from which the light of the red-hot matter being reflected in the night time, makes it appear like flame. But if, during its progress, it meets with trees or other combustible substances, which it frequently does, a bright flame immediately issues from its

5 Their general appearance.

Lava. its surface, as hath also been remarked by Sir William Hamilton.—This liquid substance, after having run pure for about 100 yards (more or less, no doubt, according to different circumstances), begins to collect cinders, stones, and a scum is formed on the surface. Our author informs us, that the lava which he observed, with its scum, had the appearance of the river Thames, as he had seen it after a hard frost and a great fall of snow, when beginning to thaw, carrying down vast masses of snow and ice. In some places it totally disappeared, and ran in a subterraneous passage formed by the scum for several paces; after which it came out pure, having left the scum behind, though a new one was quickly formed. This lava at the farthest extremity from its source did not appear liquid, but like a heap of red-hot coals, forming a wall in some places 10 or 12 feet high, which rolling from the top soon formed another wall, and so on.—This was the appearance also put on by the lava which issued in the great eruption of 1783 in Iceland; with this difference, that the wall was at one time 210 feet high, and the general thickness of it was more than 100: (See Hecla). While a lava is in this state, Sir William is of opinion, that it is very practicable to divert it into another channel, in a manner somewhat similar to what is practised with rivers. This he was afterwards told had been done with success during the great eruption of Ætna in 1669: that the lava was directing its course towards the walls of Catania, and advancing very slowly, when they prepared a channel for it round the walls of the town, and turned it into the sea. A succession of men, covered with sheep skins wetted, were employed to cut through the tough flanks of lava, till they made a passage for that in the centre, which was in perfect fusion, to disgorge itself into the channel prepared for it. But this, it is evident, can only take place in small streams of this burning matter; with that above mentioned it would have been impossible. It hath been also observed of the lavas of Ætna, that they do not constantly fall down to the lowest places, but will sometimes ascend in such a manner as to make the valleys rise into hills. On this Sir William Hamilton has the following note: "Having heard the same remark with regard to the lavas of Vesuvius, I determined, during an eruption of that volcano, to watch the progress of a current of lava, and I was soon enabled to comprehend this seeming phenomenon, though it is, I fear, very difficult to explain. Certain it is, that the lavas, while in their most fluid state, follow always the laws of other fluids; but when at a great distance from their source, and consequently encumbered with scoriæ and cinders, the air likewise having rendered their outward coat tough, they will sometimes (as I have seen) be forced up a small ascent, the fresh matter pushing forward that which went before it, and the exterior parts of the lava acting always as conductors (or pipes, if I may be allowed the expression) for the interior parts, that have retained their fluidity from not being exposed to the air."

4 Do not always ascend to the lowest places.

From the year 1767 to 1779, this gentleman made many curious observations on the lavas of Vesuvius. He found, that they constantly formed channels in the mountain as regular as if they had been made by art; and that, whilst in a state of perfect fusion, they continued their course in those channels, which were sometimes full to the brim, and at others more or less so according to the quantity of matter thrown out. These channels, after small eruptions, were generally from two to five or six feet wide, and seven or eight in depth. They were often hid from the sight by a quantity of scoriæ that had formed a crust over them, and the lava, having been conveyed in a covered way for some yards, came out again fresh into an open channel. Our author informs us, that he had walked in some of these subterraneous galleries, which were exceedingly curious, the sides, top, and bottom, being exceedingly smooth and even: others were incrusted with what he calls very extraordinary scoriæ, beautifully ramified white salts in the form of dropping stalactites, &c. Lava.

On viewing a stream of lava while in its fluid state in the month of May 1779, he perceived the operation of it in the channels above described in great perfection. After quitting them, it spread itself in the valley, and ran gently like a river that had been frozen, and had masses of ice floating upon it. The wind happening then to shift, our traveller was so incommoded by the smoke, that the guide proposed to cross it, which was instantly put in execution without any other inconvenience than the violent heat with which the legs and feet were affected. The crust was so tough, that their weight made no impression upon it, and the motion so slow that they were in no danger of falling. This circumstance, according to Sir William, points out a method of escape should any person happen to be enclosed betwixt two lavas, but ought never to be tried except in cases of real necessity; and indeed, if the current of melted matter was very broad, must undoubtedly be attended with extreme danger, both from the heat of the upper crust and the chance of its breaking and falling down with the passenger into the burning liquid below. That which Sir William Hamilton crossed was about 50 or 60 feet broad.

Having passed this burning stream, our travellers walked up along the side of it to its very source. Here they saw it boiling and bubbling violently up out of the ground, with a hissing and crackling noise like that which attends the playing off an artificial fire work. A hillock of about 15 feet high was formed by the continual splashing up and cooling of the vitrified matter. Under this was an arched hollow, red hot within, like a heated oven; the lava which ran from it being received into a regular channel raised upon a sort of wall of scoriæ and cinders, almost perpendicularly, of about the height of 8 or 10 feet, and much resembling an ancient aqueduct. On quitting this fountain of lava, they went quite up to the crater, where as usual they found a little mountain throwing up stones and red-hot scoriæ with loud explosions; but the smoke and smell of sulphur were so intolerable, that they were obliged to quit the place with precipitation.

By the great eruption in August 1779, the curious channels above mentioned were entirely destroyed, the cone of the mountain was covered with a stratum of lava full of deep cracks, from whence continually issued a sulphureous smoke that tinged the scoriæ and cinders with a deep yellow, or sometimes white tint. The lava of this eruption appeared to be more perfectly vitrified than that of any former one he had observed.

Lava. served. The pores of the fresh lava were generally full of a perfect vitrification, and the scoriæ themselves, viewed through a magnifying glass, appeared like a confused heap of filaments of foul vitrification. When a piece of the solid lava had been cracked in its fall, without separating entirely, fibres of perfect glass were always observed reaching from side to side within the cracks. The natural spun glass which fell in some places along with the ashes of this eruption, and which has likewise been observed in other places, he is of opinion must have proceeded from an operation of the kind just mentioned; the lava cracking and separating in the air at the time of its emission from the crater, and by that means spinning out the pure vitrified matter from its pores or cells; the wind at the same time carrying off the filaments of glass as fast as they were produced.

Our author observed a kind of pumice stone sticking to some very large fragments of the new lava. On close inspection, however, he found that this substance had been forced out of the minute pores of the solid lava itself; and was a collection of fine vitreous fibres or filaments confounded together at the time of their being pressed out by the contraction of the large fragments of lava in cooling, and which had been bent downwards by their own weight. "This curious substance (says he) has the lightness of a pumice, and resembles it in every respect, except that it is of a darker colour."

When the pores of this lava were large, and filled with pure vitrified matter, the latter was sometimes found blown into bubbles on the surface; probably by the air which had been forced out at the time the lava contracted itself in cooling; and from these thin bubbles it appeared, that this kind of volcanic glass has much the same transparency with our common glass bottles, and like them is of a dirty yellow colour; but when large pieces of it were broken off with a hammer, they appeared perfectly black and opaque.

In the lava of this eruption it was observed, that many detached pieces were in the shape of a barley-corn or plum stone, small at each end, and thick in the middle. Some of these did not weigh above an ounce; but others could not be less than 60 pounds. Our author took them to be drops from the liquid fountain of fire, which might naturally acquire such a form in their fall. There were also many other curious vitrifications, different from any he had seen before, mixed with this huge shower of scoriæ and masses of lava.

In treating of Mount Etna, M. Houel makes mention of a piece of lava which, after having been once ejected by the volcano, was swallowed up, and thrown out a second time. The intense heat to which it was then subjected, had such an effect upon it, that it appeared all full of chinks to a considerable depth, and which run at right angles to one another. He had also an opportunity of observing to great advantage some of the hollow channels formed by the lavas of Etna, similar to those described by Sir William Hamilton, but on a much larger scale. Here the great eruption of water in 1755 had overturned, in a vertical direction, a huge tube of this kind for the length of half a mile. The tube itself appeared to be composed of enormous masses, somewhat resembling planks; each two feet thick and twelve or fifteen in breadth, continued in a straight line through the whole of that space. At the same time by the action of the lava a kind of walls had been formed, from ten to sixteen feet in height, and curved at the top. Some of these walls appear rolled together like paper; and M. Houel is of opinion, that these various appearances on the surface of the lava when cooled, must have arisen from particles heterogeneous to the real lava; and which detach themselves from it, rising to the surface under a variety of forms proportioned to the spaces of time taken up in cooling. These crusts are formed of different kinds of scoriæ and dirty lava, mixed with sand or ashes. At the same place are also found great numbers of small pieces like those of ice heaped upon one another after having floated for some time on a river. Beneath these the pure lava is met with, and which has evidently been in a state of perfect fusion. This is extremely dense; and by looking narrowly into its chinks, the composition of the whole appears to be merely homogeneous. "It is curious (says he) to observe, so near one species of lava which is very pure, another which has likewise arrived at the same place in a fluid state, and has there undergone so great a change as scarce to retain an appearance of its original state. It is, however, like iron dross, in grains of unequal sizes. We find it also at various distances, such as one, two, or more hundred fathoms. It is sometimes found in large pieces like tables, covered over with sharp points, some longer, and others shorter. All these pieces are quite detached from one another, as if they had been brought thither and scattered from a tumbril. The matter of which the crust of the lava is formed, seems to have issued from it in the same manner in which froth rises upon solution of soap in water. It appears afterwards to have swelled, burst, and assumed its present form, presenting to the view various spaces filled with small loose stones. A great number of new lavas were likewise observed, all of them putting forth various kinds of efflorescences in great quantity.

Lava.

The hardness, density, and solidity of lavas, no doubt proceed from the degree of heat to which they have been exposed, and which seems to be greater or less according to their quantity. Hence the Icelandic volcanoes, which pour forth the greatest quantities of lava, produce it also in the greatest degree of liquefaction, and Dr Van Troil observes, that what he saw must have been liquefied to an extreme degree.

5 Observations on the different compositions of lavas by Sir W. Hamilton.

The composition of the lavas of different volcanoes, and even of different parts of those of the same volcano, is extremely different. Sir William Hamilton is of opinion that this difference in composition contributes not a little to the facility or difficulty with which they afterwards receive earth capable of vegetation. "Some (says he) have been in a more perfect state of vitrification than others, and are consequently less liable to the impressions of time. I have often observed on Mount Vesuvius, when I have been close to a mouth from whence the lava was disgorging itself, that the quality of it varied greatly from time to time. I have seen it as fluid and coherent as glass when in fusion; and I have seen it farinaceous, the particles separating as they forced their way out, just like meal coming from under the grindstone. A stream of lava of this

sort

Lava.

6 By Mr Bergman.

sort being less compact, and containing more earthy particles, would certainly be much sooner fit for vegetation than one composed of the more perfect vitrified matter." Mr Bergman, who has accurately analyzed some Icelandic lavas, informs us, that one kind is very coarse, heavy, and hard, full of bladders, almost black, intermixed with white grains resembling quartz, which in some places have a figure not very unlike a square. This black matter is not attracted by the magnet; but if a piece of it is held against a compass, the needle visibly moves. When tried in the crucible, it yields from ten to twelve pounds of iron in every hundred weight. It does not dissolve in the least with sal sodæ, and very difficultly with borax, and scarce at all with urinous salt. It seems to contain a great deal of clay in its composition, which may be extracted by all acid solvents. This last he is likewise, from experiments, assured is the case with the lava of Solfaterra in Italy.

The white lava, which possesses more or less of those transparent grains or rays with which lavas are generally chequered, does not seem to be of the nature of quartz, as it cannot be attacked by sal sodæ; it is, however, soluble with some difficulty by borax and fusible urinous salt, or microcosmic acid. These effects are perfectly similar to those produced upon the diamond, ruby, sapphire, topaz, and hyacinth. The chrysolite, garnet, tourmalin, and schoerl, can neither be dissolved by sal sodæ, though they are somewhat attacked by it when reduced to a fine powder; and upon the two last-mentioned ones it produces a slight effervescence; on which account, says Mr Bergman, it is possible that the precious stones found upon Mount Vesuvius, which are sold at Naples, are nearer related to the real precious stones than is generally imagined. He found no such grains in a finer kind of lava, quite porous within, and entirely burnt out, and considerably lighter than the former ones.

The Iceland agate is of a black or blackish brown colour, a little transparent at the thin edges like glass, and gives fire with steel. It cannot easily be melted by itself; but becomes white, and flies in pieces. It can hardly be dissolved in the fire by fusible urinous salt; but it succeeds a little better with borax, though with some difficulty. With sal sodæ it dissolves very little, though in the first moments some ebullition is perceived, and the whole mass is afterwards reduced to powder. Hence Mr Bergman concludes, that this agate hath been produced by an excessive fire out of the black lava formerly mentioned.

In the Iceland pumice-stone, quartz and crystals are often found, particularly in the black and reddish brown kind. The stones thrown out of the volcano, whether gray, or burnt brown, seemed to consist of a hardened clay, mixed with a siliceous earth. They were sprinkled with rays and grains resembling quartz, and some few flakes of mica. They fused with great difficulty in the fire; with sal sodæ they showed some effervescence at first, but which ceased in a short time. The parts resembling quartz produced no motion at all; from whence Mr Bergman concludes, that the black lava already mentioned proceeds principally from this mass. Several other stones which were sent him from Iceland, Mr Bergman supposed to have no connexion with the eruptions, but to have been produced some other way.

Lava.

7 By Mr Ferber.

In Mr Ferber's travels through Italy, we are informed, that he has seen species of lava so exactly resembling blue iron slags, that it was not to be distinguished from them but with great difficulty. The same author tells us likewise, "that the Vicentine and Veronese lavas and volcanic ashes contain enclosed several sorts of fire-striking and flint horn-stones, of a red, black, white, green, and variegated colour, such as jasper and agates; that hyacinths, chrysolites, and *pietre obsidiane*, described by Mr Arduini in his *Giornale d'Italia*, are found at Leonedo; and that chalcedony or opal pebbles, and noduli with enclosed water drops, (*chalcedonii opalii enhydri*), are dug out of the volcanic cineritious hills near Vicenza.

8 M. Dolomieu's opinion.

M. Dolomieu considers the chemical analysis of lava as but of little account. When subjected to the force of fire a second time, they are all of them reducible to the same kind of glass; from which it has been concluded, that all volcanic products have been formed of the same kind of materials, and that the subterraneous fire has always acted on and variously modified the same kind of stone. But an analysis by fire, he justly observes, is of all others the most fallacious. The substances are all fusible, and we have no proper methods of measuring the intensity of our fire; so that the same substance which to-day may come out of our furnaces untouched, may to-morrow be found completely altered, even though the fire employed should not appear to us to be any more violent than the former. Analyses by different menstrua have not been more successful. Mr Bergman has indeed analyzed some lava with acids, and gives with astonishing precision the following result, viz. that a hundred parts of lava contain forty-nine of siliceous earth, thirty-five of argillaceous earth, four of calcareous earth, and twelve of iron. These experiments, however, our author observes, give us no information with regard to laws in general. They only show the composition of the particular specimens that he tried; and even after the descriptions that he has given, we are a good deal at a loss to discover the species of lava which he subjected to analysis. "It would be as ridiculous (says M. Dolomieu), to apply this analysis to every volcanic product, as it would be to believe that the component parts of a fissile rock were the same with those of every rock composed of laminæ or thin strata." For these reasons he is of opinion, that, in order to understand the nature of lavas, we should consider not only that of volcanoes themselves, but of the bases on which they rest. Had this been done, we would have found that the volcanic fires generally exist in beds of argillaceous schistus and horn-stone; frequently in a species of porphyry, the gluten of which is intermediate betwixt horn-stone and petrosilex; containing a large quantity of schoerl, feldt-spar, and greenish quartz or chrysolite, in little rounded nodules. These substances, he tells us, would have been found in those mountains which are called primitive, and in strata buried under beds of calcareous stone; and, among other things, would have convinced us, that the fluidity of lavas does not make them lose the distinctive characters of their bases. In the mountains called *Primitive*, those rocks which

9 Bergman's analysis of lava.

10 Of the seat of volcanic fires.

Lava. are assigned as the bases of the more common lavas are found intermixed with micaceous ones, with gneiss, granite, &c. and they generally rest on masses of granite. Hence lavas must consist of all these matters, and the fire must act upon them all whenever it meets with them. Our author has constantly observed, that volcanoes situated at the greatest distance from the centre of the chain or group of mountains on which they are established, produce lavas of a more homogeneous composition, and less varied, and which contain most iron and argillaceous earth. Those, on the contrary, placed nearer the centre, are more diversified in their products; containing substances of an infinite variety of different kinds. The seat of the fire, however, he observes, does not long continue among the granites, the inflammation being either extinguished, or returning to the centre of the schistus rocks in its neighbourhood.

11 Materials abundant in the earth at great depths shown by volcanic fires.

From this knowledge of the materials of which lavas are composed, we acquire also a considerable knowledge of the matters that are found in greatest quantity in the bowels of the earth. The excavations made by mines, &c. on the surface of the earth, are mere scratches in comparison of the depths of volcanic fires; and as he considers the mountains themselves as the productions of those fires, it thence follows, that by attentively examining the materials of which they are composed, we may thence determine what kind of substances are most common at these great depths in the earth.

Thus our author thinks it probable, that schoerls and porphyries, though rare on the surface, are very common in the internal parts of the earth. As an instance of the truth of his observations, our author informs us, that he was convinced, from no other circumstance but merely inspecting the lavas of Mount Ætna, that in some parts of the island of Sicily, there existed granites, porphyries, with schistus and argillaceous horn-stones. In this opinion he persisted, notwithstanding the generally opposite sentiments of the inhabitants themselves. He searched in vain three-fourths of the island; and at last found that all the mountains, forming the point of Sicily called *Pelorus*, contain rocks of the kind above mentioned. He then saw that the base of these mountains was produced under Mount Ætna on one side, and under the Lipari islands on the other. "We must, therefore, (says he) believe, that these mountains have furnished the materials on which the volcanoes have, for thousands of years, exerted their power."

By travelling among those elevations called the *Neptunian Mountains*, or *Mons Pelorus*, he was enabled to discover the reason why the products of Ætna and the Lipari islands differ from one another. This, he says, is the unequal distribution of the granite and schistus rocks among them. The islands rest almost immediately on the granite, or are separated from it by a very thin stratum of argillaceous rock which contains porphyry; but the Sicilian volcano is situated on the prolongation of the schistus rock, which it must pierce before it reaches the granite; and accordingly very little of its lava seems to have granite for its basis. If the seat of the fire was still more distant from the centre of the mountains, their lavas would be more homogeneous; because the schist, which succeeds to the horn-stone, is less various, and hardly includes any bodies foreign to its own substance. Thus the lavas, in the extinguished volcanoes of the *Val di Noto*, which lie 15 leagues to the south-east of Ætna, contain neither granite nor porphyry; but have for their bases simple rocks, with particles of chrysolite and some schoerls. Lava.

To the granites which extend to Metazzo, opposite to Lipari, he ascribes the formation of pumice; as they contain an immense quantity of scaly and micaceous rocks, black and white, with fossil granites or *gneiss*, the basis of which is a very fusible feldt-spar; and these he supposes to be the proper materials of the pumice, having found pieces of them almost untouched in pumice-stones. There are beds of almost pure feldt-spar; to the semivitrification of which he ascribes an opaque enamel like lava mentioned in other parts of his works. Few porphyries, however, he acknowledges, are to be met with among the Neptunian mountains, though these stones abound in the lavas of Ætna. "They are not distant (says he) from the granites; and those I have found have neither the hardness nor perfection of those pieces which I gathered in the gullies, and which had been apparently washed out of the anterior parts of the mountain by water. But though the porphyries I saw here bear no proportion to those in the products of Ætna, I was sufficiently convinced of their existence, and their analogy with those of volcanoes, by discovering that the centre of these mountains contains a great number of them. Porphyries, in general, are very rare on the surface of the earth. Nature generally conceals them from us by burying them under calcareous strata, or by enclosing them in schistus rocks with which they are almost always mixed: but we are indebted to the labour of volcanoes for informing us that they are among the most common substances in the bowels of the earth; and they are never so much disguised by the subterranean fire as to be mistaken in the lavas of which they form the basis."

For an account of volcanic productions, see MINERALOGY *Index*.

12 Vast quantities of lava thrown out.

The quantity of matter thrown out from volcanoes under the name of *lava* is prodigious. After the great eruption of Ætna, in 1669, Borelli went from Pisa to Sicily to observe the effects of it. The matter thrown out at that time amounted to 93,830,750 cubical paces; so that had it been extended in length on the surface of the earth, it would have reached more than four times round the whole earth. All this matter, however, was not lava, but consisted also of sand, stone, gravel, &c. The lava he computed at 6,300,000 paces, which formed a river, according to our author, sometimes two miles broad; but according to others, it was six or seven miles broad, and sometimes 20 or 30 yards in depth. Sir William Hamilton informs us, that the lavas of Ætna are very commonly 15 or 20 miles in length, six or seven in breadth, and 50 feet deep. The most considerable is scarce less than 30 miles long and 15 broad. The most considerable lavas of Vesuvius do not exceed seven miles in length. The same author, however, tells us, that the lava which issued from Vesuvius in 1767, was six miles long, two in breadth, and in most places 60 or 70 feet deep. In

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Lava. one place it had run along a hollow way made by currents of rain not less than 200 feet deep and 100 wide; and this vast hollow it had in one place filled up. He says, he could not have believed that so great a quantity of matter could have been thrown out in such a short time, if he had not examined the whole course of it himself. Even this quantity, however, great as it is, appears very trifling in comparison of that thrown out in Iceland in the year 1783, which covered a space of ground 90 miles in length and 42 in breadth, to the depth of more than 100 feet. Dr Van Troil, in his Letters on Iceland, tells us, that he and his companions travelled over a tract of lava upwards of 300 miles in length: and in 1728, we are told that an eruption of lava took place, which continued for two years to run into a great lake, which it almost filled up.

13 equire a ng time cool.

As the lavas are thrown out from the volcanoes in the highest degree of ignition, it may easily be supposed that such vast bodies will retain their heat for a long time. It would indeed be well worth observing, what length of time is required to cool a lava perfectly; as from thence we might in some measure judge how far those philosophers are in the right, who argue concerning the length of time required to cool an ignited globe of the size of our earth or larger. Sir William Hamilton tells us, that in the month of April 1771, he thrust sticks into some of the crevices of the lava which had issued from Vesuvius in October 1767, and they immediately took fire. On Mount Ætna, in 1769, he observed the lava that had been disgorged three years before to smoke in many parts. No particular observation, however, hath been made in what proportion the heat of lavas is gradually lost.

Sir William Hamilton informs us of a curious fact relating to a lava in the island called *Lacco*. Here is a cavern shut up with a door; and this cavern is made use of to cool liquor, and fruit, which it does in a short time as effectually as ice. Before the door was opened, he felt the cold on his legs very sensibly; but when it was opened, the cold rushed out so as to give him pain; and within the grotto it was intolerable. He was not sensible of wind attending this cold; though upon Mount Ætna and Vesuvius, where there are caverns of this kind, the cold is evidently occasioned by a subterraneous wind: the natives call such places *ventaroli*. From old lavas there also frequently happens an eruption of noxious vapours called *mofetes*. These likewise break out from wells and subterraneous places in the neighbourhood of a volcano before an eruption. Our author tells us, that the vapour affects the nostrils, throat, and stomach, just as the spirit of hartshorn or any strong volatile salt; and would soon prove fatal if you did not immediately withdraw from it. These mofetes, he says, are at all times to be met with under the ancient lavas of Vesuvius, particularly the great eruption of 1631.

14 old and oxious va- ours pro- iced by d lavas.

15 ses of va.

Sir William Hamilton informs us, that the lavas of Ætna and Vesuvius are much the same, but those of Ætna rather blacker and more porous than those of Vesuvius. Some kinds of lava take a fine polish, and are frequently manufactured into boxes, tables, &c. In Naples, the inhabitants commonly make use of it for paving the streets, and even the subterraneous cities of Pompeii and Herculaneum have been paved with the same substance. A fine large cubic piece of lava is preserved in the hall of the British Museum.

Lava || Lavater.

LAVANDULA, LAVENDER, a genus of plants belonging to the didynamia class, and in the natural method ranking under the 42d order, *Verticillatæ*. See BOTANY *Index*.

LAVATER, JOHN GASPARD CHRISTIAN, best known by his writings on physiognomy, was born at Zurich in Switzerland, in 1741. He was brought up a Protestant minister, and entered into holy orders in 1761. He was for some time pastor of the orphans church in that city; but from the year 1778, he was deacon and pastor of St Peter's church in the same place. The eloquence of his discourses in the pulpit procured for him an early reputation, as well as the ardent zeal and Christian benevolence with which he discharged the duties of his office. Though not much conversant with books, he had a very extensive knowledge of human nature, and a most acute discernment. His theological writings in prose and verse are little known, but his works on physiognomy have extended his fame throughout every part of Europe. We are informed by himself, that he felt an early propensity to study the human face, and frequently drew such features as made a peculiar impression upon his mind; but his choice of physiognomy was fixed by the suggestion of Dr Zimmerman, who, having heard his remarks on the singular countenance of a soldier whom they saw passing by as they stood together at a window, urged him to pursue and methodise his ideas. He soon acquired a full conviction of the reality of physiognomical science, and of his own discoveries in it. His first volume on this subject appeared at Leipzig in 1776, and the 20 sections of which it was composed he modestly denominated *fragments*. With him it appeared to be an axiom, "that the powers and faculties of the mind have representative signs in the *solid* parts of the countenance." This notion he extended to all animated nature, firmly believing that internal qualities invariably denote themselves by external marks or tokens.

Two more volumes soon appeared in succession, containing a wonderful assemblage of curious observations, refined reasoning, delicate feeling, and philanthropic sentiments, with a number of engravings highly finished and singularly expressive. This work was well translated into the French and English languages, and was for some time the favourite topic of literary discussion. So much was its author admired, that no foreigner of distinction passed through Zurich without obtaining an interview with Lavater, and asking his opinion of some character from a shade or miniature. His huge volumes, however, are now seldom looked at except for the sake of the plates, and his physiognomical notions appear to be consigned to oblivion with other sciences of a chimerical nature. One of the best known of his miscellaneous publications is his Aphorisms on Man, which contain originality both of sentiment and expression, with deep and philosophical views of human nature.

Lavater was zealously attached to the Christian revelation, and translated Bonnet's Enquiry into the Evidences of Christianity, into the German language. This book he dedicated to the celebrated Jewish philosopher, Moses Mendelsohn, with a challenge either to refute it publicly, or profess his conviction of the truth

Lavater || Lavatory.

of its arguments. This challenge he afterwards confessed to have been inconsiderate, and that his zeal had misled him. His popularity at Zurich was so extremely great, that in his walks it was no uncommon thing to see the people flocking around him, and kissing his hand in token of respect. He had a most exemplary moral character, and his zeal in doing good was scarcely ever surpassed. He was mild and moderate in conversation, although naturally full of fire and sensibility; he was candid in his estimate of such as differed from him in opinion; he always rose early, and never took his breakfast till he thought he had earned it. He was the determined enemy of tyranny in every shape, being possessed of the genuine Swiss zeal for liberty. He was therefore a friend to the French revolution at its commencement; but the rapine, plunder, and bloodshed which afterwards disgraced it, made him one of its bitterest antagonists. On the day when the unfortunate city of Zurich was stormed by Massena in 1799, he received a wound in the breast from a Swiss soldier in the streets, to whom he had formerly been a benefactor. He never wholly recovered from the effects of this wound; and he brought on a train of dangerous symptoms by attending for more than an hour, in the open air, a man who was condemned to be shot as a spy. The activity and vigour of his mind, however, continued till a short time before his death, which took place on the 2d of January, 1801.

LAVATERA, a genus of plants, belonging to the polyadelphia class, and in the natural method ranking under the 37th order, *Columniferæ*. See BOTANY *Index*.

LAVATORY, or LAVADERO, a name given to certain places in Chili and Peru, where gold is got out of earth by washing.

M. Frezier gives us the following description of the *lavatories* of Chili:—They dig deep into the earth, in such places as they have reason to expect gold in; and, in order to facilitate this digging, turn a stream of water upon the spot, loosening the earth as much as possible all the time, that the current may have the greater effect, and tear up the earth more strongly. When they are got to the earth they want, they turn off the stream, and dig dry.

The earth that they now get, is carried on mules, and discharged into a basin, made somewhat in the manner of a smith's bellows; into which a little rivulet of water runs with a great deal of rapidity, dissolving the parts of the earth, and carrying every thing away with it, excepting the particles of gold, which, by their great weight, precipitate to the bottom of the basin, and mix with fine black sand, where they are almost as much hidden as they were before in the earth.

Sometimes they find very considerable pieces in *lavatories*, particularly pieces of twenty-four ounces each. There are several *lavatories*, where they find pepitas, or pieces of virgin gold, of a prodigious size. Among others, they tell of one that weighed 512 ounces, bought by the count de la Moncloa, viceroy of Peru.

Nine or ten leagues to the east of Coquimbo, are the *lavatories of Andacoll*, the gold whereof is 23 carats fine.—Their works here always turn to great profit, excepting when the water fails them.—The natives maintain that the earth is creative, that is, it produces gold, continually; because, after having been washed 60 or 80 years, they find it impregnated afresh, and draw almost as much out of it as at first.

Lavatory || Laud.

LAUBACH, a handsome and strong town of Germany, in the circle of Austria, and in Carniola, with a bishop's see, a castle, and very handsome houses. It is seated on a river of the same name, wherein are the largest crawfish in Europe. E. Long. 14. 45. N. Lat. 46. 10.

LAUD, WILLIAM, archbishop of Canterbury in the 17th century, was born at Reading in 1573, and educated in St John's college, Oxford, of which he was afterwards a fellow and grammar reader. In 1610, he went into orders. In 1611, he was elected president of St John's college; but his election being disputed, it was confirmed by his majesty. The same year he was sworn the king's chaplain. In 1621, he was nominated bishop of St David's. In 1628, he was translated to the bishopric of London. In 1630, he was elected chancellor of the university of Oxford. In 1633, he attended the king into Scotland, and was sworn a privy counsellor for that kingdom. During his stay in Scotland, he formed the resolution of bringing that church to an exact conformity with the church of England. In the same year, he succeeded Archbishop Abbot in the see of Canterbury; and soon after came out his majesty's declaration about lawful sports on Sundays, which the archbishop was charged with having revived and enlarged, and that with the vexatious prosecutions of such clergymen as refused to read it in their churches. In 1634-5, the archbishop was put into the great committee of trade and the king's revenue; on the 4th of March following, he was appointed one of the commissioners of the treasury; and on the 6th of March 1635 6, he received the staff of lord high treasurer of England. In order to prevent the printing and publishing what he thought improper books, he procured a decree to be passed in the star-chamber, on the 11th of July 1637, whereby it was enjoined that the master printers should be reduced to a certain number, and that none of them should print any books till they were licensed either by the archbishop or the bishop of London, or some of their chaplains, or by the chancellors or vice chancellors of the two universities. A new parliament being summoned, met on the 13th of April 1640; and the convocation the day following: but the commons launching out into complaints against the archbishop, and insisting upon a redress of grievances before they granted any supply, the parliament was dissolved on the 7th of May. The convocation, however, continued sitting; and made 17 canons, which were supposed to be formed under the immediate direction of the archbishop. In the beginning of the long parliament he was attacked on account of those canons: and they being condemned by the house of commons on the 16th of December 1640, "as containing many things contrary to the king's prerogative, to the fundamental laws and statutes of this realm, to the rights of parliament, to the property and liberty of the subject, and tending to sedition, and of dangerous consequence;" he was, on the 18th of December, accused by the commons of high treason, and sent to the Tower.

Being

Laud || Lauder.

Being tried before the house of lords, for endeavouring to subvert the laws, and to overthrow the Protestant religion, he was found guilty, and beheaded on Tower-hill on January 10th following, in the 72d year of his age. This learned prelate, notwithstanding his being charged with a design to bring in Popery, wrote an Answer to Dr Fisher, which is esteemed one of the best pieces that has been printed against that religion. He was temperate in his diet, and regular in his private life: but his fondness for introducing new ceremonies, in which he showed a hot and indiscreet zeal, his encouraging of sports on Sundays, his illegal and cruel severity in the star-chamber and high commission courts, and the fury with which he persecuted the dissenters, and all who presumed to contradict his sentiments, exposed him to popular hatred. Besides his Answer to Fisher, he published several sermons, and other works.

LAUDANUM. See Opium, Materia Medica *Index*.

LAUDATIO, in a legal sense, was anciently the testimony delivered in court of the accused person's good behaviour and integrity of life. It resembled the custom, which prevails in our trials, of calling persons to speak to the character of the prisoner. The least number of the *laudatores* among the Romans was ten.

LAUDER, William, a native of Scotland, was educated at the university of Edinburgh, where he finished his studies with great reputation, and acquired a considerable knowledge of the Latin tongue. In May 22. 1734, he received a testimonial from the heads of the university, certifying that he was a fit person to teach humanity in any school or college whatever. In 1739 he published at Edinburgh an edition of Johnston's Psalms. In 1742, he was recommended by Mr Patrick Cumming and Mr Colin Maclaurin, professors of church history and mathematics, to the mastership of the grammar school at Dundee, then vacant. Whether he succeeded in his application or not, is uncertain: but a few years afterwards we find him in London, contriving to ruin the reputation of Milton; an attempt which ended in the destruction of his own. His reason for the attack probably sprung from the virulence of a violent party-spirit, which triumphed over every principle of honour and honesty. He began first to retail part of his design in the Gentleman's Magazine, 1747; and finding that his forgeries were not detected, was encouraged in 1751 to collect them, with additions, into a volume, entitled, "An Essay on Milton's Use and Imitation of the Moderns in his Paradise Lost," 8vo. The fidelity of his quotations had been doubted by several people; and the falsehood of them was soon after demonstrated by Dr Douglas, in a pamphlet, entitled, "Milton Vindicated from the Charge of Plagiarism brought against him by Lauder, and Lauder himself convicted of several Forgeries and gross Impositions on the Public: In a Letter humbly addressed to the Right Honnurable the Earl of Bath, 1751," 8vo. The appearance of this Detection overwhelmed Lauder with confusion. He subscribed a confession, dictated by a learned friend, wherein he ingenuously acknowledged his offence, which he professed to have been occasioned by the injury he had received from the disappointment of his expectations of profit from the publication of Johnston's Psalms. This misfortune he ascribed to a couplet in Mr Pope's Dunciad, Book iv. ver. 3. and from thence originated his rancour against Milton. He afterwards imputed his conduct to other motives; abused the few friends who continued to countenance him; and, finding that his character was not to be retrieved, quitted the kingdom, and went to Barbadoes, where he some time taught a school. His behaviour there was mean and despicable; and he passed the remainder of his life in universal contempt. "He died (says Mr Nicholas) some time about the year 1771, as my friend Mr Reed was informed by the gentleman who read the funeral service over him."

Lauder || Lauds.

LAUDICOENI, amongst the Romans, applauders, who for reward entered the rehearsal-rooms, attended the repetition of plays, and were in waiting when orations were pronounced, in order to raise or increase the acclamation and applause.

LAUDOHN, Field Marshal, a celebrated general in the Imperial service, born in 1716, was a native of Livonia, and descended from a Scottish family. He made his first campaigns under Marshal Munich, in the war of 1738, between the Russians and Turks; and was at the taking of Oczakow, Choczim, and Stawutzchane, where the Turks were entirely defeated. Frederick the Great refused, in 1741, to take young Laudohn into his service, saying he did not like his countenance; though this monarch, who was considered as the greatest general of his age, afterwards said, that he often admired the positinns of other generals, but that he had ever dreaded the battles of Laudohn. In 1756, when but just entered into the service of the house of Austria, with the rank of lieutenant-colonel, he made such a rapid progress, that within less than a year he was a general of artillery, and within three years commander in chief of the whole army. He rescued Olmutz, when besieged by the Prussians; beat the king himself at Frankfort on the Oder; at Zorndorf, took General Fouquet prisoner; carried Glatz and Schweidnitz by assault; and stopped the progress of Frederick in a war which might have proved fatal to the house of Austria. In 1778, when elevated to the rank of marshal, at the head of 60,000 men, he hindered Henry, brother to the king of Prussia, from joining his army to that of the king. At Dubicza, Novi, Grandisca, and Belgrade, in the late war between the emperor and the Turks, he had but to present himself before the place, and say with Cæsar, *Veni, Vidi, Vici*. But at his head quarters in Moravia, he was seized with a fever, in consequence of an operation he underwent for an obstruction in the urethra. His impatience under the medical applications, the impetuous ardour of his character, and the knowledge, above all, of his importance in the war, contributed to irritate his mind, and promote the violence of the fever. He resisted the application of cataplasms, before and after the incisions were made, with a fatal obstinacy, which raised the inflammation to such a height, that he expired under the accession of the fever on the 14th of July 1790, in the 74th year of his age.

LAUDS, Laudes, the second part of the ordinary office of the breviary, said after matins; though, heretofore, it ended the office of the night.

The laudes consist principally of psalms, hymns, &c.

Lauds || Laughter.

&c. whence they took their name, from *laus, laudis,* "praise."

LAVENHAM, or LANHAM, 61 miles from London, is a pleasant and pretty large town of Suffolk, on a branch of the river Bret, from whence it rises gradually to the top of a hill, where are its church, which is a very handsome Gothic structure, and in which are several ancient monuments; and a spacious market-place, encompassed with nine streets or divisions, in a very healthy free air. It had formerly a very considerable trade in blue cloth; and had three guilds or companies, with each their hall. It has still a considerable manufactory of serges, shalloons, says, stuffs, and spinning fine yarn for London; and many hundred loads of wool are delivered every year from its wool-hall. It is governed by 6 capital burgesses, who are for life, and choose the inferior officers. The church, and its steeple, which is 137 feet high, are reckoned the finest in the county. Its tenor bell, though not much more than a ton, has as deep a note as a bell of twice that weight. Here is a free school and a bridewell, part of which is a workhouse where the poor children, &c. of the parish are employed in spinning hemp, flax, and yarn. The tenants of the manor and the other inhabitants were always exempted from serving at any court held for its hamlet. The tenure of land called *Borough English* exists here. Population 1711 in 1811.

LAVENDER. See LAVANDULA, BOTANY, and MATERIA MEDICA *Index.*

LAVER, in scripture history, a sacred utensil placed in the court of the Jewish tabernacle, consisting of a bason, whence they drew water by cocks, for washing the hands and feet of the officiating priests, and also the entrails and legs of the victims.

LAVERNA, in antiquity, the goddess of thieves and cheats among the Romans, who honoured her with public worship, because she was supposed to favour those who wished that their designs might not be discovered. Varro says, that she had an altar near one of the gates of Rome; hence called *porta lavernalis.*

LAUGERIA, a genus of plants belonging to the pentandria class, and in the natural method ranking among those of which the order is doubtful. See BOTANY *Index.*

LAUGHTER, an affection peculiar to mankind, occasioned by something that tickles the fancy.

In laughter, the eyebrows are raised about the middle, and drawn down next the nose; the eyes are almost shut; the mouth opens and shows the teeth, the corners of the mouth being drawn back and raised up; the cheeks seem puffed up, and almost hide the eyes; the face is usually red; the nostrils are open; and the eyes wet.

Authors attribute laughter to the fifth pair of nerves, which sending branches to the eye, ear, lips, tongue, palate, and muscles of the cheek, parts of the mouth, præcordia, &c. there hence arises a sympathy, or consent, between all these parts; so that when one of them is acted upon, the others are proportionably affected. Hence a savoury thing seen, or smelt, affects the glands, and parts of the mouth; a thing seen, or heard, that is shameful, affects the cheeks with blushes; on the contrary, if it please and tickle the fancy, it affects the præcordia, and muscles of the mouth and face, with laughter; if it cause sadness and melancholy, it likewise affects the præcordia, and demonstrates itself by causing the glands of the eyes to emit tears. Dr Willis accounts for the pleasure of kissing from the same cause; the branches of this fifth pair being spread to the lips, the præcordia, and the genital parts; whence arises a sympathy between those parts. Laughter.

The affection of the mind by which laughter is produced is seemingly so very different from the other passions with which we are endowed, that it hath engaged the attention of very eminent persons to find it out.—1. Aristotle, in the fifth chapter of his Poetics, observes of comedy, that "it imitates those vices or meannesses only which partake of the ridiculous:—now the ridiculous (says he) consists of some fault or turpitude not attended with great pain, and not destructive." 2. "The passion of laughter (says Mr Hobbes) is nothing else but sudden glory arising from some sudden conception of some eminency in ourselves, by comparison with the infirmity of others, or with our own formerly. For men (continues he) laugh at the follies of themselves past, when they come suddenly to remembrance, except when we bring with them any sudden dishonour." 3. Akenside, in the third book of his excellent poem, treats of ridicule at considerable length. He gives a detail of ridiculous characters; ignorant pretenders to learning, boastful soldiers, and lying travellers, hypocritical churchmen, conceited politicians, old women that talk of their charms and virtue, ragged philosophers who rail at riches, virtuosi intent upon trifles, romantic lovers, wits wantonly satirical, fops that out of vanity appear to be diseased and profligate, dastards who are ashamed or afraid without reason, and fools who are ignorant of what they ought to know. Having finished the detail of characters, he makes some general remarks on the cause of ridicule; and explains himself more fully in a prose definition illustrated by examples. The definition, or rather description, is in these words: "That which makes objects ridiculous, is some ground of admiration or esteem connected with other more general circumstances comparatively worthless or deformed: or it is some circumstance of turpitude or deformity connected with what is in general excellent or beautiful; the inconsistent properties existing either in the objects themselves, or in the apprehension of the person to whom they relate; belonging always to the same order or class of being; implying sentiment and design, and exciting no acute or vehement commotion of the heart." 4. Hutcheson has given another account of the ludicrous quality, and seems to think that it is the contrast or opposition of dignity and meanness which occasions laughter.

All these opinions are refuted by Dr Beattie in his Essay on Laughter and Ludicrous Composition, where he has treated the subject in a masterly manner. "To provoke laughter (says he), is not essential either to wit or humour. For though that unexpected discovery of resemblance between ideas supposed dissimilar, which is called *wit*—and that comic exhibition of singular characters, sentiments, and imagery, which is denominated *humour*,—do frequently raise laughter, they do not raise it always. Addison's poem to Sir Godfrey Kneller, in which the British kings are likened to heathen gods, is exquisitely witty, and yet not laughable. Pope's

Essay

Laughter. Essay on Man abounds in serious wit; and examples of serious humour are not uncommon in Fielding's History of Parson Adams, and in Addison's account of Sir Roger de Coverley. Wit, when the subject is grave, and the allusions sublime, raises admiration instead of laughter: and if the comic singularities of a good man appear in circumstances of real distress, the imitation of these singularities in the epic or dramatic comedy will form a species of humour, which, if it should force a smile, will draw forth a tear at the same time. An inquiry, therefore, into the distinguishing characters of wit and humour has no necessary connection with the present subject.

"Some authors have treated of ridicule, without marking the distinction between *ridiculous* and *ludicrous* ideas. But I presume the natural order of proceeding in this inquiry, is to begin with ascertaining the nature of what is *purely ludicrous*. Things *ludicrous* and things *ridiculous* have this in common, that both excite laughter; but the former excite pure laughter, the latter excite laughter mixed with disapprobation and contempt. My design is to analyze and explain that quality in things or ideas, which makes them provoke *pure laughter*, and entitles them to the name of *ludicrous* or *laughable*.

"When certain objects, qualities, or ideas, occur to our senses, memory, or imagination, we smile or laugh at them, and expect that other men should do the same. To smile on certain occasions is not less natural, than to weep at the sight of distress or cry out when we feel pain.

"There are different kinds of laughter. As a boy, passing by night through a churchyard, sings or whistles in order to conceal his fear even from himself; so there are men, who, by forcing a smile, endeavour sometimes to hide from others, and from themselves too perhaps, their malevolence or envy. Such laughter is unnatural. The sound of it offends the ear; the features distorted by it seem horrible to the eye. A mixture of hypocrisy, malice, and cruel joy, thus displayed on the countenance, is one of the most hateful sights in nature, and transforms the "human face divine" into the visage of a fiend. Similar to this is the smile of a wicked person pleasing himself with the hope of accomplishing his evil purposes. Milton gives a striking picture of it in that well-known passage:

> He ceas'd; for both seem'd highly pleased; and Death
> Grinn'd horrible a ghastly smile, to hear
> His famine should be fill'd, and blest his maw
> Destin'd to that good hour.——

But enough of this. Laughter that makes a man a fiend or a monster, I have no inclination to analyze. My inquiries are confined to that species of laughter which is at once natural and innocent.

"Of this there are two sorts. The laughter occasioned by tickling or gladness is different from that which arises on reading the Tale of a Tub. The former may be called *animal laughter*: the latter (if it were lawful to adopt a new word which has become very common of late) I should term *sentimental*. Smiles admit of similar divisions. Not to mention the scornful, the envious, the malevolent smile, I would only remark, that of the innocent and agreeable smile there are two sorts. The one proceeds from the risible emotion, and has a tendency to break out into laughter. The other is the effect of good humour, complacency, and tender affection. This last sort of smile renders a countenance amiable in the highest degree. Homer ascribes it to Venus in an epithet (φιλομμειδης), which Dryden and Pope, after Waller, improperly translate *laughter-loving*; an idea that accords better with the character of a romp or hoyden, than with the goddess of love and beauty. Laughter.

"Animal laughter admits of various degrees; from the gentle impulse excited in a child by moderate joy, to that terrifying and even mortal convulsion which has been known to accompany a change of fortune. This passion may, as well as joy and sorrow, be communicated by sympathy; and I know not whether the entertainment we receive from the playful tricks of kittens and other young animals may not in part be resolved into something like a fellow-feeling of their vivacity.—Animal and sentimental laughter are frequently blended; but it is easy to distinguish them. The former is often excessive; the latter never, unless heightened by the other. The latter is always pleasing, both in itself and in its cause; the former may be painful in both. But their principal difference is this:—The one always proceeds from a sentiment or emotion excited in the mind, in consequence of certain ideas or objects being presented to it, of which emotion we may be conscious even when we suppress laughter;—the other arises not from any sentiment or perception of ludicrous ideas, but from some bodily feeling, or sudden impulse on what is called the *animal spirits*, proceeding, or seeming to proceed, from the operation of causes purely material. The present inquiry regards that species that is here distinguished by the name of *sentimental laughter*.

"The pleasing emotion, arising from the view of ludicrous ideas, is known to every one by experience; but, being a simple feeling, admits not of definition. It is to be distinguished from the laughter that generally attends it, as sorrow is to be distinguished from tears; for it is often felt in a high degree by those who are remarkable for gravity of countenance. Swift seldom laughed, notwithstanding his uncommon talents in wit and humour, and the extraordinary delight he seems to have had in surveying the ridiculous side of things. Why this agreeable emotion should be accompanied with laughter as its outward sign, or sorrow express itself by tears, or fear by trembling or paleness, I cannot ultimately explain, otherwise than by saying, that such is the appointment of the Author of nature.—All I mean by this inquiry is, to determine, "What is peculiar to those things which produce laughter,—or rather, which raise in the mind that pleasing sentiment or emotion whereof laughter is the external sign.

"Philosophers have differed in their opinions concerning this matter. In Aristotle's definition quoted above, it is clear that he means to characterize, not laughable qualities in general (as some have thought), but the objects of comic ridicule only; and in this view the definition is just, however it may have been overlooked or despised by comic writers. Crimes and misfortunes are often, in modern plays, and were sometimes in the ancient, held up as objects of public merriment; but if poets had that reverence for

Laughter. for nature which they ought to have, they would not shock the common sense of mankind by so absurd a representation. The definition from Aristotle does not, however, suit the general nature of ludicrous ideas; for it will appear by and by, that men laugh at that in which there is neither fault nor turpitude of any kind.

"The theory of Mr Hobbes would hardly have deserved notice, if Addison had not spoken of it with approbation in the 47th paper of the Spectator. He justly observes, after quoting the words of Mr Hobbes formerly mentioned, that "according to this account, when we hear a man laugh excessively, instead of saying that he is very merry, we ought to tell him that he is very proud." It is strange, that the elegant author should be aware of this consequence, and yet admit the theory: for so good a judge of human nature could not be ignorant, that laughter is not considered as a sign of pride; persons of singular gravity being often suspected of that vice, but great laughers seldom or never. When we see a man attentive to the innocent humours of a merry company, and yet maintain a fixed solemnity of countenance, is it natural for us to think that he is the humblest, and the only humble person in the circle?

"Another writer in the Spectator, N° 249. remarks, in confirmation of this theory, that the *vainest* part of mankind are most addicted to the passion of laughter. Now, how can this be, if the *proudest* part of mankind are also most addicted to it, unless we suppose vanity and pride to be the same thing? But they certainly are different passions. The proud man despises other men, and derives his chief pleasure from the contemplation of his own importance: the vain man stands in need of the applause of others, and cannot be happy without it. Pride is apt to be reserved and sullen; vanity is often affable, and officiously obliging. The proud man is so confident of his merit, and thinks it so obvious to all the world, that he will scarcely give himself the trouble to inform you of it: the vain man, to raise your admiration, scruples not to tell you, not only the whole truth, but even a great deal more. In the same person these two passions may, no doubt, be united; but some men are too proud to be vain, and some vain men are too conscious of their own weakness to be proud. Be all this, however, as it will, we have not as yet made any discovery of the cause of laughter: in regard to which, I apprehend, that the vain are not more intemperate than other people; and I am sure that the proud are much less so.

"Hutcheson's account of the origin of laughter is equally unsatisfactory. Granting what he says to be true, I would observe, in the first place, what the ingenious author seems to have been aware of, that there may be a mixture of meanness and dignity where there is nothing ludicrous. A city, considered as a collection of low and lofty houses, is no laughable object. Nor was that person either ludicrous or ridiculous, whom Pope so justly characterises,

"The greatest, wisest, meanest of mankind."

—But, secondly, cases might be mentioned, of laughter arising from a group of ideas or objects, wherein there is no discernible opposition of meanness or dignity. We are told of the dagger of Hudibras, Laughter. that

"It could scrape trenchers, or chip bread,
"Toast cheese or bacon, though it were
"To bait a mouse trap, 'twou'd not care;
"'Twou'd make clean shoes, or in the earth
"Set leeks and onions, and so forth."

The humour of the passage cannot arise from the meanness of these offices compared with the dignity of the dagger, nor from any opposition of meanness and dignity in the offices themselves, they being all equally mean; and must therefore be owing to some peculiarity in the description. We laugh, when a droll mimics the solemnity of a grave person; here dignity and meanness are indeed united: but we laugh also (though not so heartily perhaps) when he mimics the peculiarities of a fellow as insignificant as himself, and displays no opposition of dignity and meanness. The levities of Sancho Pança opposed to the solemnity of his master, and compared with his own schemes of preferment, form an entertaining contrast: but some of the vagaries of that renowned squire are truly laughable, even when his preferment and his master are out of the question. Men laugh at puns; the wisest and wittiest of our species have laughed at them; Queen Elizabeth, Cicero, and Shakespeare, laughed at them; clowns and children laugh at them; and most men, at one time or other, are inclined to do the same: but in this sort of low wit, is it an opposition of meanness and dignity that entertains us? Is it not rather a mixture of sameness and diversity,—sameness in the sound, and diversity in the signification?

"In the characters mentioned by Akenside, the author does not distinguish between what is *laughable* and what is *contemptible*; so that we have no reason to think, that he meant to specify the qualities peculiar to those things which provoke *pure laughter*; and whatever account we may make of his definition, which to those who acquiesce in the foregoing reasonings may perhaps appear not quite satisfactory, there is in the poem a passage that deserves particular notice, as it seems to contain a more exact account of the ludicrous quality than is to be found in any of the theories above mentioned. This passage we shall soon have occasion to quote."

Our author now goes on to lay down his own theory concerning the origin of laughter, which he supposes to arise from the view of things incongruous united in the same assemblage. "However imperfect (says he) the above-mentioned theories may appear, there is none of them destitute of merit; and indeed the most fanciful philosopher seldom frames a theory without consulting nature in some of her more obvious appearances. Laughter very frequently arises from the view of dignity and meanness united in the same object; sometimes, no doubt, from the appearance of assumed inferiority, as well as of small faults and unimportant turpitudes; and sometimes, perhaps, though rarely, from that sort of pride which is described in the passage already quoted from Hobbes.

"All these accounts agree in this, that the cause of laughter is something compounded; or something that disposes the mind to form a comparison, by passing from

Laughter. from one object or idea to another. That this is in fact the case, cannot be proved *à priori;* but this holds in all the examples hitherto given, and will be found to hold in all that are given hereafter. May it not then be laid down as a principle, That laughter arises from the view of two or more objects or ideas disposing the mind to form a comparison? According to the theory of Hobbes, this comparison would be between the ludicrous object and ourselves; according to those writers who misapply Aristotle's definition, it would seem to be formed between the ludicrous object and things or persons in general; and if we incline to Hutcheson's theory, which is the best of the three, we shall think that there is a comparison of the parts of the ludicrous object, first with one another, and secondly with ideas or things extraneous.

"Further: every appearance that is made up of parts, or that leads the mind of the beholder to form a comparison, is not ludicrous. The body of a man or woman, of a horse, a fish, or a bird, is not ludicrous, though it consists of many parts; and it may be compared to many other things without raising laughter; but the picture described in the beginning of the epistle to the Pisoes, with a man's head, a horse's neck, feathers of different birds, limbs of different beasts, and the tail of a fish, would have been thought ludicrous 1800 years ago, if we believe Horace, and in certain circumstances would no doubt be so at this day. It would seem then, that 'the parts of a laughable assemblage must be in some degree unsuitable and heterogeneous.'

"Moreover: any one of the parts of the Horatian monster, a human head, a horse's neck, the tail of a fish, or the plumage of a fowl, is not ludicrous, in itself; nor would those several pieces be ludicrous if attended to in succession, without any view to their union. For to see them disposed on the different shelves of a museum, or even on the same shelf, nobody would laugh, except, perhaps, the thought of uniting them were to occur to his fancy, or the passage of Horace to his memory. It seems to follow, that 'the incongruous parts of a laughable idea or object must either be combined so as to form an assemblage, or must be supposed to be so combined.'

"May we not then conclude, 'that laughter arises from the view of two or more inconsistent, unsuitable, or incongruous parts or circumstances, considered as united in one complex object or assemblage, or as acquiring a sort of mutual relation from the peculiar manner in which the mind takes notice of them?' The lines from Akenside formerly referred to, seem to point at the same doctrine:

> Where-e'er the pow'r of ridicule displays
> Her quaint-ey'd visage, *some incongruous form,*
> *Some stubborn dissonance of things combin'd,*
> Strikes on the quick observer.

And to the same purpose, the learned and ingenious Dr Gerard, in his *Essay on Taste:* 'The sense of ridicule is gratified by an inconsistence and dissonance of circumstances in the same object, or in objects nearly related in the main; or by a similitude or a relation unexpected between things on the whole opposite and unlike.'

"And therefore, instead of saying, with Hutcheson, that the cause or object of laughter is an 'opposition of dignity and meanness;' I would say, in more general terms, that it is 'an opposition of suitableness or unsuitableness, or of relation and the want of relation, united, or supposed to be united, in the same assemblage.' Thus the offices ascribed to the dagger of Hudibras seem quite heterogeneous; but we discover a bond of connection among them, when we are told that the same weapon could occasionally perform them all. Thus, even in that mimicry which displays no opposition of dignity and meanness, we perceive the actions of one man joined to the features and body of another; that is, a mixture of unsuitableness, or want of relation, arising from the difference of persons, with congruity and similitude, arising from the sameness of the action. And here let it be observed in general, that the greater number of incongruities that are blended in the same assemblage, the more ludicrous it will probably be. If, as in Butler's resemblance of the morning to a boiled lobster, there is a mixture of dignity and meanness, as well as of likeness and dissimilitude, the effect of the contrast will be more powerful, than if only one of these oppositions had occurred in the ludicrous idea. The sublimity of Don Quixote's mind, contrasted and connected with his miserable equipage, forms a very comical exhibition; but when all this is still further connected and contrasted with Sancho Pança, the ridicule is heightened exceedingly. Had the knight of the lions been better mounted and accoutred, he would not have made us smile so often; because, the hero's mind and circumstances being more adequately matched, the whole group would have united fewer inconsistencies, and reconciled fewer incongruities. Butler has combined a still greater variety of uncouth and jarring circumstances in Ralpho and Hudibras: but the picture, though more elaborate, is less natural. Yet this argues no defect of judgment. His design was, to make his hero not only ludicrous, but contemptible; and therefore he jumbles together, in his equipage and person, a number of mean and disgusting qualities, pedantry, ignorance, nastiness, and extreme deformity. But the knight of La Mancha, though a ludicrous, was never intended for a contemptible, personage. He often moves our pity, he never forfeits our esteem; and his adventures and sentiments are generally interesting; which could not have been the case if his story had not been natural, and himself been endowed with great as well as good qualities. To have given him such a shape, and such weapons, arguments, boots, and breeches, as Butler has bestowed on his champion, would have destroyed that solemnity which is so striking a feature in Don Quixote; and Hudibras, with the manners and person of the Spanish hero, would not have been that paltry figure which the English poet meant to hold up to the laughter and contempt of his countrymen. Sir Launcelot Greaves is of Don Quixote's kindred, but a different character. Smollet's design was not to expose him to ridicule, but rather to recommend him to our pity and admiration. He has therefore given him youth, strength, and beauty, as well as courage and dignity of mind; has mounted him on a generous steed, and arrayed him in an elegant suit of armour. Yet, that the history might have a comic air, he has been careful to contrast and connect Sir

Laughter || Launceston.

Launcelot with a squire and other associates of very dissimilar tempers and circumstances.

"What has been said of the cause of laughter does not amount to an exact description, far less to a logical definition; there being innumerable combinations of congruity and inconsistency, of relation and contrariety, of likeness and dissimilitude, which are not ludicrous at all. If we could ascertain the peculiarities of these, we should be able to characterise with more accuracy the general nature of ludicrous combination. But before we proceed to this, it would be proper to evince, that of the present theory thus much at least is true, that though every incongruous combination is not ludicrous, every ludicrous combination is incongruous.

"It is only by a detail of facts or examples that any theory of this sort can be either established or overthrown. By such a detail, the foregoing theories have been, or may be, shown to be ill founded, or not sufficiently comprehensive. A single instance of a laughable object, which neither unites, nor is supposed to unite, incongruous ideas, would likewise show the insufficiency of the present; nor will I undertake to prove (for indeed I cannot), that no such instance can be given. A complete enumeration of ludicrous objects it would be in vain to attempt: and therefore we can never hope to ascertain, beyond the possibility of doubt, that common quality which belongs to all ludicrous ideas that are, or have been, or may be, imagined. All that can be done in a case of this kind is to prove by a variety of examples, that the theory now proposed is more comprehensive, and better founded, than any of the foregoing." This our author afterwards shows at full length; but as the variety of examples adduced by him would take up too much room to be inserted here, and as every reader must be capable of adducing numberless instances of ludicrous cases to himself, we shall content ourselves with the above explanation of the different theories of laughter, referring those who desire further satisfaction to the treatise already quoted.

LAVINGTON EAST, a town of Wilts, four miles south of the Devizes, and 89 miles from London. It is called in our histories Stepult Lavington; but now Cheaping or Market Lavington, on account of its markets, which are on Monday and Wednesday. It is supposed to have been a market town above 200 years. Here is a charity school for 36 children, who have books given them, and the girls are taught to knit and sew. Population 899 in 1811.

LAVINIUM, in *Ancient Geography*, a town of Latium, six miles to the east of Laurentum, according to an ancient map; so named from *Lavinia*, consort of Æneas, and daughter of King Latinus, and built by the Trojans. The first town of Roman original in Latium, and the seat of the Dii Penates, (Livy): situated near the river Numicus, or Numicius; between which and the Tiber Æneas landed, according to Virgil. Holstenius supposes the town to have stood on an eminence, now called *il Monte de Levano*.

LAUNCE. See LANCE.

LAUNCESTON, a town of Cornwall in England, seated on the river Tamar, 214 miles from London. It is also called *Dunhivid*, from its situation on a down. King Henry III. made it a free borough. It was composed before of two other boroughs, viz. Dunivid and Newport. It has been the place for choosing knights of the shire ever since the reign of King Edward I. and the assizes town ever since Richard II. till by a late act of parliament the lord chancellor or lord keeper was empowered to name any other place in the county for it; since which the summer assizes have been held at Bodmin. It was incorporated by Queen Mary in 1555. It is governed by a mayor, recorder, and eight aldermen, has a free school which was founded by Queen Elizabeth, and is a populous trading town. In the 32d of Henry VIII. an act was made for the repair of this and other decayed Cornish boroughs; and it endowed this town with the privileges of a sanctuary, though it does not appear to have used them. It had a monastery and a noble castle, which, because of its strength, was called *castle terrible*, and was given by King Richard I. to his brother, afterwards King John. Here are two charity schools for 48 children of both sexes, where the girls are taught to knit, sew, and make bonelace. Leland says it was walled in his time, and one mile in compass. The lower part of its ancient castle is used for the gaol. Population 1758 in 1811.

Launceston || Lavoisier.

LAUNCH, in the sea language, signifies to put out: as, *Launch the ship*, that is, Put her out of dock: *launch aft*, or *forward*, speaking of things that are stowed in the hold, is Put them more forward; *launch ho!* is a term used when a yard is hoisted high enough, and signifies *hoist no more*. See also LANCH.

LAUNDER, in *Mineralogy*, a name given in Devonshire, and other places, to a long and shallow trough, which receives the powdered ore after it comes out of the box or coffer, which is a sort of mortar, in which it is powdered with iron pestles. The powdered ore, which is washed into the launder by the water from the coffer, is always finest near the grate, and coarser all the way down.

LAVOISIER, ANTOINE LAURENT, a celebrated chemical philosopher, was born at Paris on the 26th of August 1745. His father being a man of opulent circumstances, spared no cost on the education of his son, who soon gave a decided preference to the physical sciences. An extraordinary premium having been offered by the French government in the year 1764, for the best and most economical method of lighting the streets of an extensive city, our author, although at that time only 21 years of age, gained the gold medal; and his excellent memoir was published by the academy, of which he became a member on the 13th of May 1768. His attention was alternately occupied with the pretended conversion of water into earth, the analysis of the gypsum found in the vicinity of Paris, the congelation of water, the phenomena of thunder, and the aurora borealis.

By undertaking journeys with Guettard into every province of France, he was enabled to procure an immense variety of materials for a description of the mineralogical kingdom, serving as the foundation of a great work on the revolutions of the globe, two admirable sketches of which are to be seen in the memoirs of the French academy for 1772 and 1787. His whole time and fortune were dedicated to the cultivation of the sciences, nor did he seem more attached to one than to another, till an interesting event decided his choice in favour of chemistry. The discovery of

gases

Lavoisier. gases was just made known to the learned world, by Black, Priestley, Scheele, Cavendish, and Macbride, which appeared like a new creation.

About the year 1770, Lavosier was so struck with the grandeur and importance of the discovery, that he turned all his attention to this fountain of truths, perceiving the powerful influence which this new science would have over every physical research. He was inspired with the true spirit of inductive philosophy, and all his experiments had a direct reference to general views. He published his chemical opuscules in the year 1774, containing a history of whatever had been done before respecting the gases, and concluding with his own grand and interesting experiments. He demonstrated that metals, in calcination, derive their increased weight from the absorption of air, of which he afterwards proved that nitrous acid is composed. His chemical ingenuity was now so well known, that Turgot employed him in 1776 to inspect the manufacture of gunpowder, which he made to carry 120 toises instead of 90. In the year 1778 he discovered that all acids contain the respirable portion of the atmosphere as a constituent principle, and to this he gave the name of oxygen. This was the first grand step towards the new chemistry, which was fully completed by his confirming the discovery of the composition of water, ascertained in 1783.

His Elements of Chemistry were published in 1789, which is a beautiful model of scientific composition, elegant, clear, and logical. His celebrated system was almost universally adopted in a very few years, so full was the conviction it carried along with it to every candid, reflecting mind. The last of Lavoisier's philosophical works was on the perspiration of animals, first read to the academy on the 4th of May 1791. By a number of the nicest experiments, he found that a man in one day perspires 45 ounces; that he consumes 33 ounces of vital air, or oxygen; that 8 cubic feet of carbonic acid gas are discharged from his lungs; that the weight of water discharged from the lungs is 23 ounces, composed of 3 of hydrogen and 20 of oxygen, which interesting discoveries he directed to the improvement of medicine.

There are no fewer than 40 memoirs of Lavoisier in the volumes of the Academy of Sciences from 1772 to 1793, full of the grand phenomena of the science; such as the analysis of atmospherical air, the formation of elastic fluids, the properties of the matter of heat, the composition of acids, the decomposition of water, &c. &c. To the sciences, arts, and manufactures, he rendered the most essential services, both in a public and private capacity. After Buffon and Tillet, he was treasurer to the academy, into the accounts of which he introduced both economy and order. He was consulted by the national convention as to the most eligible means of improving the manufacture of assignats, and of augmenting the difficulties of forging them. He turned his attention also to political economy, and between 1778 and 1785, he allowed 240 *arpents* in the Vendomois to experimental agriculture, and increased the ordinary produce by one half. In 1791, the constituent assembly invited him to draw up a plan for rendering more simple the collection of the taxes, which produced an excellent report, printed under the title of Territorial Riches of France.

While the horrors of Robespierre's usurpation continued, he used to observe to Lalande that he foresaw he would be deprived of all his property, but that he was extremely willing to work for his subsistence; and it is supposed that he meant to pursue the profession of apothecary, as most congenial to his studies. But the unrelenting tyrant had already fixed his doom. He suffered on the scaffold with 28 farmers general on the 8th of May 1794, for no other crime but because he was opulent. A paper was presented to the tribunal, drawn up by Citizen Hallé, containing a description of the works, and a recapitulation of the merits, of Lavoisier, sufficient to make an impression on the most obdurate heart; but it was not even read by these men, who were the blind, stupid, and ferocious instruments of cruelty and death. Lavoisier || Laureate.

A man so rare and so extraordinary ought to have enjoyed the respect of the most ignorant, and even the most wicked. To produce the contrary, it was necessary that power should fall into the hands of a tyrant who respected none, and whose blind and sanguinary ambition sacrificed every thing to the desire of pleasing the people.

Lavoisier was tall, and possessed a countenance full of benignity, through which his genius shone conspicuous. As to his character, it was mild, humane, sociable, obliging; and he discovered an incredible degree of activity. He had great influence on account of his credit, fortune, reputation, and his office in the treasury; but all the use he made of it was to do good: yet this did not prevent jealousy on the part of others. In 1771 he married Marie-Anna-Pierette-Paulze, the daughter of a farmer-general, whose excellent accomplishments formed the delight of his life, who assisted him in his labours, and even drew the figures for his last work. She had the misfortune to behold her father, husband, and intimate friends, assassinated in one day: she was herself imprisoned, and even menaced with a similar fate; but the unshaken fortitude of her mind made her rise superior to the horrors of her condition. We learn that she has since given her hand to the celebrated Count Rumford.

LAURA, in church history, a name given to a collection of little cells at some distance from each other, in which the hermits in ancient times lived together in a wilderness.

These hermits did not live in community, but each monk provided for himself in his distinct cell. The most celebrated lauras mentioned in ecclesiastical history were in Palestine: as the laura of St Euthymus, at four or five leagues distance from Jerusalem; the laura of St Saba, near the brook Cedron; the laura of the Towers, near the river Jordan, &c.

POET LAUREATE, an officer of the household of the kings of Britain, whose business consists only in composing an ode annually on his majesty's birth day, and on the new year; sometimes also, though rarely, on occasion of any remarkable victory.—Of the first institution of poets laureate, Mr Wharton has given the following account in his history of English poetry. "Great confusion has entered into this subject, on account of the degrees in grammar, which included rhetoric and versification, anciently taken in our universities, particularly at Oxford: on which occasion, a wreath of laurel was presented to the new graduate, who was afterwards usually styled *Poeta Laureatus.*

Laureate. These scholastic laureations, however, seem to have given rise to the appellation in question. I will give some instances at Oxford, which at the same time will explain the nature of the studies for which our academical philologists received their rewards. About the year 1470, one John Watson, a student in grammar, obtained a concession to be graduated and laureated in that science; on condition that he composed one hundred Latin verses in praise of the university, and a Latin comedy. Another grammarian was distinguished with the same badge, after having stipulated, that at the next public act, he would affix the same number of hexameters on the great gates of St Mary's church, that they might be seen by the whole university. This was at that period the most convenient mode of publication. About the same time, one Maurice Byrchensaw, a scholar in rhetoric, supplicated to be admitted to read lectures, that is, to take a degree in that faculty; and his petition was granted, with a provision, that he should write one hundred verses on the glory of the university, and not suffer Ovid's Art of Love, and the Elegies of Pamphilius, to be studied in auditory. Not long afterwards, one John Bulman, another rhetorician, having complied with the terms imposed, of explaining the first book of Tully's Offices, and likewise the first of his Epistles, without any pecuniary emolument, was graduated in rhetoric; and a crown of laurel was publicly placed on his head by the hands of the chancellor of the university. About the year 1489, Skelton was laureated at Oxford, and in the year 1493 was permitted to wear his laurel at Cambridge. Robert Whittington affords the last instance of a rhetorical degree at Oxford. He was a secular priest, and eminent for his various treatises in grammar, and for his facility in Latin poetry: having exercised his art many years, and submitting to the customary demand of a hundred verses, he was honoured with the laurel in the year 1512.

"With regard to the poet laureate of the kings of England, he is undoubtedly the same that is styled the *king's versifier*, and to whom 100 shillings were paid as his annual stipend in the year 1251. But when or how that title commenced, and whether this officer was ever solemnly crowned with laurel at his first investiture, I will not pretend to determine, after the searches of the learned Selden on this question have proved unsuccessful. It seems most probable, that the barbarous and inglorious name of *versifier* gradually gave way to an appellation of more elegance and dignity: or rather that at length those only were in general invited to this appointment, who had received academical sanction, and had merited a crown of laurel in the universities for their abilities in Latin composition, particularly Latin versification. Thus the *king's laureate* was nothing more than 'a *graduated* rhetorician employed in the service of the king.' That he originally wrote in Latin, appears from the ancient title *versificator:* and may be moreover collected from the two Latin poems, which Baston and Gulielmus, who appear to have respectively acted in the capacity of royal poets to Richard I. and Edward II. officially composed on Richard's crusade, and Edward's siege of Striveling castle.

"Andrew Bernard, successively poet laureate of Henry VII. and VIII. affords a still stronger proof that this officer was a Latin scholar. He was a native of Thoulouse, and an Augustine monk. He was not only the king's poet laureate, as it is supposed, but his historiographer, and preceptor in grammar to Prince Arthur. He obtained many ecclesiastical preferments in England. All the pieces now to be found, which he wrote in the character of poet laureate, are in Latin. These are, An Address to Henry VIII. for the most auspicious beginning of the 10th year of his reign, with an *Epithalamium* on the marriage of Francis the dauphin of France with the king's daughter;" A New Year's Gift for the year 1515; and, Verses wishing prosperity to his majesty's 13th year. He has left some Latin hymns; and many of his Latin prose pieces, which he wrote in the quality of historiographer to both monarchs, are remaining. Laureate Laurentius.

"I am of opinion, that it was not customary for the royal laureate to write in English, till the reformation of religion had begun to diminish the veneration for the Latin language; or, rather, till the love of novelty, and a better sense of things, had banished the narrow pedantries of monastic erudition, and taught us to cultivate our native tongue."

LAUREL. See PRUNUS and LAURUS, BOTANY *Index*.

LAUREL, pieces of gold coined in the year 1619, with the king's head laureated, which gave them the name of *laurels;* the 20s. pieces whereof were marked with XX. the 10s. X. and the 5s. pieces with V.

LAURENS CASTRA. See LAURENTUM.

LAURENTALIA, or LARENTALIA, called also *Larentinalia*, *Laurentales*, and *Larentales*, feasts celebrated among the Romans on the 10th of the kalends of January, or 23d of December, in memory of Acca Laurentia, wife of the shepherd Faustulus, and nurse of Romulus and Remus.

Acca Laurentia, from whom the solemnity took its name, is represented as no less remarkable for the beauty of her person, than her lasciviousness; on account of which she was nick-named by her neighbours *lupa*, "she wolf;" which is said to have given rise to the tradition of Romulus and Remus being suckled by a wolf. She afterwards married a very rich man, who brought her great wealth, which, at her death, she left to the Roman people; in consideration whereof they performed to her these honours; though others represent the feast as held in honour of Jupiter Latiaris. See LARENTINALIA and LARES.

LAURENTIUS, one of the first printers, and, according to some, the inventor of the art, was born at Haerlem about the year 1370, and executed several departments of magistracy of that city. Those writers are mistaken who assign to him the surname of *Coster*, or assert that the office of ædituus was hereditary in his family. In a diploma of Albert of Bavaria in 1380, in which, among other citizens of Haerlem, our Laurentius's *father* is mentioned by the name of *Joannes Laurentii filius*, Beroldus is called *ædituus*, who was surely of another family; and in 1396 and 1398 Henricus à Lunen enjoyed that office; after whose resignation, Count Albert conferring on the citizens the privilege of electing their ædituus, they, probably soon after, fixed on Laurentius: who was afterwards called *Coster* from his office, and not from his family name, as he was descended from an illegiti-

mate

Laurentius Laurentium.

mate branch of the Gens Brederodia. His office was very lucrative; and that he was a man of great property, the elegance of his house may testify. That he was the *inventor* of printing, is asserted in the narrative of Junius. His first work was an *Horarium*, containing the Letters of the Alphabet, the Lord's Prayer, the Apostles Creed, and two or three short Prayers; the next was the *Speculum Salutis*, in which he introduced *pictures* on *wooden blocks;* then *Donatus*, the larger size; and afterwards the same work in a less size. All these were printed on *separate moveable wooden types* fastened together by threads. If it be thought improbable, that so ingenious a man should have proceeded no farther than the invention of *wooden types;* it may be answered, that he printed for profit, not for fame; and *wooden* types were not only *at that time* made sooner and cheaper than *metal* could be, but were sufficiently durable for the small impressions of each book he must necessarily have printed.—His press was nearly shaped like the common wine-presses.—He printed some copies of *all* his books both on paper and vellum.—It has been very erroneously supposed, that he quitted the profession, and died broken hearted: but it is certain, that he did not live to see the art brought to perfection.—He died in 1440, aged 70; and was succeeded either by his son-in-law, Thomas Peter, who married his only daughter Lucia; or by their immediate descendants, Peter, Andrew and Thomas; who were old enough (even if their father was dead, as it is likely he was) to conduct the business, the eldest being at least 22 or 23. What books they printed it is not easy to determine; they having, after the example of Laurentius (more anxious for profit than for fame), neither added to their books their names, the place where they were printed, nor the date of the year. Their first essays were new editions of *Donatus* and the *Speculum*. They afterwards reprinted the latter, with a Latin translation, in which they used their grandfather's wooden pictures: and printed the book partly on *wooden blocks*, partly on *wooden separate types*, according to Mr Meerman, who has given an exact engraving of *each sort*, taken from different parts of the same book, which was published between the years 1442 and 1450. Nor did they stop here; they continued to print several editions of the *Speculum*, both in Latin and in Dutch; and many other works, particularly "Historia Alexandri Magni;" "Flavii *Vedatii* [for *Vegetii*] Renati Epitome de Re Militari:" and "Opera varia à Thomas Kempis." Of each of these Mr Meerman has given an engraved specimen. They were all printed with *separate wooden types;* and, by their great neatness, are a proof that the descendants of Laurentius were industrious in improving his invention. Kempis was printed at Haerlem in 1472, and was the last known work of Laurentius's descendants, who soon after disposed of all their materials, and probably quitted the employment; as the use of *fusil types* was about that time universally diffused through Holland by the settling of Martens at Alost, where he pursued the art with reputation for upwards of 60 years. See (*History of*) PRINTING.

LAURENTIUM, or LAURENS CASTRA, in *Ancient Geography*, a town of Latium, supposed to be the royal residence of those most ancient kings Latinus, Picus, and Faunus, (Virgil.) Hither the emperor Commodus retired during a pestilence. Its name was from an adjoining grove of bay trees, midway between Ostia and Antium. Supposed to have stood in the place now called *San Lorenzo;* which seems to be confirmed from the Via Laurentina leading to Rome.

Laurentium & Lausanne.

LAURO, PHILIPPO, a celebrated painter, was born at Rome in 1623. He learned the first rudiments of the art from his father Balthasar, who was himself a good painter. He afterwards studied under Angelo Carosello, his brother-in-law; and proved so great a proficient, that in a short time he far surpassed his tutor in design, colouring, and elegance of taste. He applied himself to painting historical subjects in a small size, enriching the back grounds with lively landscapes, that afforded the eye and the judgment equal entertainment; but though his small paintings are best approved, he finished several grand compositions for altar pieces that were highly esteemed. He died in 1694; and his works are eagerly bought up at high prices all over Europe.

LAURO, or *Lauron*, in *Ancient Geography*, a town of the Hither Spain, where Cn. Pompeius, son of Pompey the Great, was defeated and slain. Now Lorigne, five leagues to the north of Liria in Valencia.

LAURUS, the BAY TREE, a genus of plants belonging to the enneandria class; and in the natural method ranking under the 11th order, *Holoraceæ*. See BOTANY *Index*.

LAUS, or LAOS, in *Ancient Geography*, a river of Italy, separating Lucania from the Bruttii, and running from east to west into the Tuscan sea; with a cognominal bay, and a town, the last of Lucania, a little above the sea; a colony from Sybaris, according to Strabo, Pliny, and Stephanus. Both town and river are now called *Laino*, in the Calabria Citra; and the bay called *Golfo della Scalea*, or *di Policastro*, two adjoining towns, is a part of the Tuscan sea, extending between the promontory Palinurus and the mouth of the Laus.

Laus Pompeia, in *Ancient Geography*, a town of Insubria, situated to the east of Milan, between the rivers Addua and Lamber. A town built by the Boii after their passing the Alps: its ancient Gaulic name is unknown. Strabo Pompeius, father of Pompey, leading thither a colony, gave it a new name, and conferred the *Jus Latii* on the ancient inhabitants who remained there. The modern Lodi is built from its ruins, at some distance off. E. Long. 10. 15. N. Lat. 45. 22.

LAUSANNE, a large, ancient, and handsome town of Switzerland, capital of the country of Vaud, and in the canton of Berne, with a famous college and bishop's see. The townhouse and the other public buildings are magnificent. It is seated between three hills near the lake of Geneva, in E. Long. 6. 35. N. Lat. 46. 30. and contains about 8000 inhabitants.—The town stands on an ascent, so steep that in some places the horses cannot draw up a carriage without great difficulty, and foot passengers ascend to the upper parts of the town by steps. Here is an academy for the students of the country; the professors are appointed by government; and there is a pretty good public library. The church, formerly the cathedral, is a magnificent Gothic building, standing on the most elevated part of the town. Among other sepulchres it contains that of Amadæus VIII. duke of Savoy, styled the

Lausanne. the *Solomon* of his age; best known by the title of *Antipope Felix V.* who exhibited the singular example of a man twice abdicating the sovereignty, and retiring from regal pomp to a private station.

The same year that the country named *Pays de Vaud* was conquered from the house of Savoy, the inhabitants of Lausanne put themselves under the protection of the canton of Berne, their bishop having retired from the town. At that time its privileges were confirmed and augmented, and it is still governed by its own magistrates. The citizens of the principal street have the privilege of pronouncing sentence in criminal cases. If the criminal is found, and acknowledges himself guilty, the burghers of the street assemble; one of the magistrates pleads in his behalf, and another against him; the court of justice give their opinion upon the point of law; and the majority of citizens possessing houses in the principal street, determine the penalty. In capital cases there is no pardon, according to the letter of the law, unless it can be obtained within 24 hours from the sovereign council of Berne, though it generally happens that eight days are allowed for this purpose. When the criminal is seized within the jurisdiction of the town, the fact is tried, and the burghers pronounce sentence, from which there is no appeal; but if he happens to be taken in the district of the bailiff, there is an appeal to the government of Berne. Lausanne Lavori.

LAVORI, TERRA DI, a province of Italy, in the kingdom of Naples, bounded on the west by the Campagna di Roma, and by Farther Abruzzo; on the north by the Hither Abruzzo, and by the county of Molissa; on the east by Principata Ultra; and on the south by the Principata Citra. It is about 63 miles in length and 35 in breadth; and is fertile in corn, excellent vines, and other fruits. There are also several mineral springs and mines of sulphur. Naples is the capital town.

L A W.

PART I. OF THE NATURE OF LAWS IN GENERAL.

1 Definition; General, and

LAW, in its most general and comprehensive sense, signifies a rule of action; and is applied indiscriminately to all kinds of action, whether animate or inanimate, rational or irrational. Thus we say, the laws of motion, of gravitation, of optics, of mechanics, as well as the laws of nature and of nations. And it is that rule of action which is prescribed by some superior, and which the inferior is bound to obey.

Thus when the Supreme Being formed the universe, and created matter out of nothing, he impressed certain principles upon that matter, from which it can never depart, and without which it would cease to be. When he put that matter into motion, he established certain laws of motion, to which all moveable bodies must conform. And, to descend from the greatest operations to the smallest, when a workman, forms a clock, or other piece of mechanism, he establishes at his own pleasure certain arbitrary laws for its direction; as, that the hand shall describe a given space in a given time; to which law as long as the work conforms, so long it continues in perfection, and answers the end of its formation.

If we farther advance, from mere inactive matter to vegetable and animal life, we shall find them still governed by laws; more numerous indeed, but equally fixed and invariable. The whole progress of plants, from the seed to the root, and from thence to the seed again; the method of animal nutrition, digestion, secretion, and all other branches of vital economy;—are not left to chance, or the will of the creature itself, but are performed in a wondrous involuntary manner, and guided by unerring rules laid down by the great Creator.

This then is the general signification of law, a rule of action dictated by some superior being: and, in those creatures that have neither the power to think nor to will, such laws must be invariably obeyed, so long as the creature itself subsists; for its existence depends on that obedience. But laws, in their more confined sense, and in which it is our present business to consider them, denote the rules, not of action in general, but of *human* action or conduct: that is, the precepts by which man, the noblest of all sublunary beings, a creature endowed with both reason and free will, is commanded to make use of those faculties in the general regulation of his behaviour. 2 Particular.

Man, considered as a creature, must necessarily be subject to the laws of his Creator, for he is entirely a dependent being. A being, independent of any other, has no rule to pursue but such as he prescribes to himself; but a state of dependance will inevitably oblige the inferior to take the will of him on whom he depends as the rule of his conduct; not indeed in every particular, but in all those points wherein his dependance consists. This principle therefore has more or less extent and effect, in proportion as the superiority of the one and the dependance of the other is greater or less, absolute or limited. And consequently, as man depends absolutely upon his Maker for every thing, it is necessary that he should in all points conform to his Maker's will.

3 Law of nature.

This will of his Maker is called the *law of nature*. For as God, when he created matter, and endued it with a principle of mobility, established certain rules for the perpetual direction of that motion; so, when he created man, and endued him with free will to conduct himself in all parts of life, he laid down certain immutable laws of human nature, whereby that free will is in some degree regulated and restrained, and gave him also the faculty of reason to discover the purport of those laws.

Considering the Creator only as a being of infinite

power,

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power, he was able unquestionably to have prescribed whatever laws he pleased to his creature man, however unjust or severe. But as he is also a Being of infinite wisdom, he has laid down only such laws as were founded in those relations of justice, that existed in the nature of things antecedent to any positive precept. These are the eternal immutable laws of good and evil, to which the Creator himself in all his dispensations conforms; and which he has enabled human reason to discover, so far as they are necessary for the conduct of human actions. Such, among others, are these principles: That we should live honestly, should hurt nobody, and should render to every one his due; to which three general precepts Justinian has reduced the whole doctrine of law.

But if the discovery of these first principles of the law of nature depended only upon the due exertion of right reason, and could not otherwise be obtained than by a chain of metaphysical disquisitions, mankind would have wanted some inducement to have quickened their inquiries, and the greater part of the world would have rested content in mental indolence, and ignorance its inseparable companion. As therefore the Creator is a being, not only of infinite power and wisdom, but also of infinite goodness, he has been pleased so to contrive the constitution and frame of humanity, that we should want no other prompter to inquire after and pursue the rule of right, but only our own self-love, that universal principle of action. For he has so intimately connected, so inseparably interwoven, the laws of eternal justice with the happiness of each individual, that the latter cannot be attained but by observing the former; and if the former be punctually observed, it cannot but induce the latter. In consequence of which mutual connexion of justice and human felicity, he has not perplexed the law of nature with a multitude of abstracted rules and precepts, referring merely to the fitness or unfitness of things, as some have vainly surmised; but has graciously reduced the rule of obedience to this one paternal precept, "that man should pursue his own happiness." This is the foundation of what we call *ethics, or natural law* *. For the several articles into which it is branched in our systems amount to no more than demonstrating, that this or that action tends to man's real happiness, and therefore very justly concluding, that the performance of it is a part of the law of nature; or, on the other hand, that this or that action is destructive of man's real happiness, and therefore that the law of nature forbids it.

* See Morality.

This law of nature, being coeval with mankind, and dictated by God himself, is of course superior in obligation to any other. It is binding over all the globe, in all countries, and at all times: no human laws are of any validity, if contrary to this, and such of them as are valid derive all their force, and all their authority, mediately or immediately, from this original.

But in order to apply this to the particular exigencies of each individual, it is still necessary to have recourse to reason: whose office it is to discover, as was before observed, what the law of nature directs in every circumstance of life, by considering, what method will tend the most effectually to our own substantial happiness. And if our reason were always, as in our first ancestor before his transgression, clear and perfect, unruffled by passions, unclouded by prejudice, unimpaired by disease or intemperance, the task would be pleasant and easy; we should need no other guide but this. But every man now finds the contrary in his own experience; that his reason is corrupt, and his understanding full of ignorance and error.

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This has given manifold occasion for the benign interposition of Divine Providence; which, in compassion to the frailty, the imperfection, and the blindness of human reason, hath been pleased, at sundry times and in divers manners, to discover and enforce its laws by an immediate and direct revelation. The doctrines thus delivered, we call the *revealed* or *divine law*, and they are to be found only in the Holy Scriptures. These precepts, when revealed, are found upon comparison to be really a part of the original law of nature, as they tend in all their consequences to man's felicity. But we are not from thence to conclude, that the knowledge of these truths was attainable by reason in its present corrupted state; since we find, that, until they were revealed, they were hid from the wisdom of ages. As then the moral precepts of this law are indeed of the same original with those of the law of nature, so their intrinsic obligation is of equal strength and perpetuity. Yet undoubtedly the revealed law is of infinitely more authenticity than that moral system which is framed by ethical writers, and denominated the *natural law*: because one is the law of nature, expressly declared so to be by God himself, the other is only what, by the assistance of human reason, we imagine to be that law. If we could be as certain of the latter as we are of the former, both would have an equal authority: but till then they can never be put in any competition together.

4 Law of Revelation.

Upon these two foundations, the law of nature and the law of revelation, depend all human laws; that is to say, no human laws should be suffered to contradict these. There are, it is true, a great number of indifferent points, in which both the divine law and the natural leave a man at his own liberty; but which are found necessary, for the benefit of society, to be restrained within certain limits. And herein it is that human laws have their greatest force and efficacy: for, with regard to such points as are not indifferent, human laws are only declaratory of, and act in subordination to, the former. To instance in the case of murder: this is expressly forbidden by the divine, and demonstrably by the natural, law; and from these prohibitions arises the true unlawfulness of this crime. Those human laws that annex a punishment to it, do not at all increase its moral guilt, or superadd any fresh obligation in *foro conscientiæ* to abstain from its perpetration. Nay, if any human law should allow or enjoin us to commit it, we are bound to transgress that human law, or else we must offend both the natural and the divine. But with regard to matters that are in themselves indifferent, and are not commanded or forbidden by those superior laws; such, for instance, as exporting of wool into foreign countries; here the inferior legislature has scope and opportunity to interpose, and to make that action unlawful which before was not so.

If man were to live in a state of nature, unconnected with other individuals, there would be no occasion for any other laws than the law of nature and the law of God. Neither could any other law possibly exist:

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for a law always supposes some superior who is to make it; and in a state of nature we are all equal, without any other superior but him who is the Author of our being. But man was formed for society; and, as is demonstrated by the writers on this subject, is neither capable of living alone, nor indeed has the courage to do it. However, as it is impossible for the whole race of mankind to be united in one great society, they must necessarily divide into many; and form separate states, commonwealths, and nations, entirely independent of each other, and yet liable to a mutual intercourse.

5 Law of nations.

Hence arises a third kind of law to regulate this mutual intercourse, called *the law of nations*: which, as none of these states will acknowledge a superiority in the other, cannot be dictated by either; but depends entirely upon the rules of natural law, or upon mutual compacts, treaties, leagues, and agreements, between these several communities: in the construction also of which compacts we have no other rule to resort to but the law of nature; being the only one to which both communities are equally subject: and therefore the civil law very justly observes, that *quod naturalis ratio inter omnes homines constituit, vocatur jus gentium.*

6 Municipal or civil law.

To the consideration, then, of the law of nature, the revealed law, and the law of nations, succeeds that of the municipal or civil law; that is, the rule by which particular districts, communities, or nations, are governed; being thus defined by Justinian, "*jus civile est quod quisque sibi populus constituit.*" We call it *municipal* law, in compliance with common speech; for though, strictly, that expression denotes the particular customs of one single *municipium* or free town, yet it may with sufficient propriety be applied to any one state or nation which is governed by the same laws and customs.

7 Defined.

Municipal law, thus understood, is properly defined to be "a rule of civil conduct prescribed by the supreme power in a state, commanding what is right, and prohibiting what is wrong." Let us endeavour to explain its several properties, as they arise out of this definition.

8 Its first property.

And, first, it is a *rule*: not a transient sudden order from a superior to or concerning a particular person; but something permanent, uniform, and universal. Therefore a particular act of the legislature to confiscate the goods of Titius, or to attaint him of high treason, does not enter into the idea of a municipal law: for the operation of this act is spent upon Titius only, and has no relation to the community in general; it is rather a sentence than a law. But an act to declare that the crime of which Titius is accused shall be deemed high treason; this has permanency, uniformity, and universality, and therefore is properly a *rule*. It is also called a *rule*, to distinguish it from *advice* or *counsel*, which we are at liberty to follow or not as we see proper, and to judge upon the reasonableness or unreasonableness of the thing advised: whereas our obedience to the law depends not upon *our approbation*, but upon the *Maker's will*. Counsel is only matter of persuasion, law is matter of injunction; counsel acts only upon the willing, law upon the unwilling also.

It is also called a *rule*, to distinguish it from a *compact* or *agreement*; for a compact is a promise proceeding from us, law is a command directed to us. The language of a compact is, "I will, or will not, do this;" that of a law is, "Thou shalt, or shall not, do it." It is true there is an obligation which a compact carries with it, equal in point of conscience to that of a law; but then the original of the obligation is different. In compacts, we ourselves determine and promise what shall be done, before we are obliged to do it; in laws, we are obliged to act without ourselves determining or promising any thing at all. Upon these accounts law is defined to be "a rule."

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9 Second property.

Municipal law is also "a rule of *civil conduct*." This distinguishes municipal law from the natural or revealed: the former of which is the rule of moral conduct; and the latter not only the rule of moral conduct, but also of faith. These regard man as a creature; and point out his duty to God, to himself, and to his neighbour, considered in the light of an individual. But municipal or civil law regards him also as a citizen, and bound to other duties towards his neighbour, than those of mere nature and religion: duties, which he has engaged in by enjoying the benefits of the common union; and which amount to no more, than that he do contribute, on his part, to the subsistence and peace of the society.

10 Third property.

It is likewise "a rule *prescribed*." Because a bare resolution, confined in the breast of the legislator, without manifesting itself by some external sign, can never be properly a law. It is requisite that this resolution be notified to the people who are to obey it. But the manner in which this notification is to be made, is matter of very great indifference. It may be notified by universal tradition and long practice, which supposes a previous publication, and is the case of the common law of England and of Scotland. It may be notified *viva voce*, by officers appointed for that purpose; as is done with regard to proclamations, and such acts of parliament as are appointed to be publicly read in churches and other assemblies. It may, lastly, be notified by writing, printing, or the like; which is the general course taken with all our acts of parliament. Yet, whatever way is made use of, it is incumbent on the promulgators to do it in the most public and perspicuous manner; not like Caligula, who (according to Dio Cassius) wrote his laws in a very small character, and hung them up upon high pillars, the more effectually to ensnare the people. There is still a more unreasonable method than this, which is called making of laws *ex post facto*: when after an action (indifferent in itself) is committed, the legislator then for the first time declares it to have been a crime, and inflicts a punishment upon the person who has committed it. Hence it is impossible that the party could foresee, that an action, innocent when it was done, should be afterwards converted to guilt by a subsequent law: he had therefore no cause to abstain from it; and all punishment for not abstaining must of consequence be cruel and unjust. All laws should be therefore made to commence *in futuro*, and be notified before their commencement; which is implied in the term "prescribed." But when this rule is in the usual manner notified or prescribed, it is then the subject's business to be thoroughly acquainted therewith; for if ignorance of what he might know, were admitted as a legitimate excuse, the laws would be of no effect, but might always be eluded with impunity.

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But further: Municipal law is "a rule of civil conduct prescribed *by the supreme power in a state*." For legislature, as was before observed, is the greatest act of superiority that can be exercised by one being over another. Wherefore it is requisite to the very essence of a law, that it be made by the supreme power. Sovereignty and legislature are indeed convertible terms; one cannot subsist without the other.

11 Fourth property.

This will naturally lead us into a short inquiry concerning the nature of society and civil government; and the natural inherent right that belongs to the sovereignty of a state, wherever that sovereignty be lodged, of making and enforcing laws.

12 Civil society.

The only true and natural foundations of society are the wants and fears of individuals. Not that we can believe, with some theoretical writers, that there ever was a time when there was no such thing as society; and that, from the impulse of reason, and through a sense of their wants and weaknesses, individuals met together in a large plain, entered into an original contract, and chose the tallest man present to be their governor. This notion, of an actually existing unconnected state of nature, is too wild to be seriously admitted: and besides, it is plainly contradictory to the revealed accounts of the primitive origin of mankind, and their preservation 2000 years afterwards; both which were effected by the means of single families. These formed the first society among themselves, which every day extended its limits; and when it grew too large to subsist with convenience in that pastoral state wherein the patriarchs appear to have lived, it necessarily subdivided itself by various migrations into more. Afterwards, as agriculture increased, which employs and can maintain a much greater number of hands, migrations became less frequent; and various tribes, which had formerly separated, reunited again; sometimes by compulsion and conquest, sometimes by accident, and sometimes perhaps by compact. But though society had not its formal beginning from any convention of individuals, actuated by their wants and their fears; yet it is the sense of their weakness and imperfection that keeps mankind together, that demonstrates the necessity of this union, and that therefore is the solid and natural foundation, as well as the cement of society. And this is what we mean by the original contract of society; which, though perhaps in no instance it has ever been formally expressed at the first institution of a state, yet in nature and reason must always be understood and implied in the very act of associating together; namely, that the whole should protect all its parts, and that every part should pay obedience to the will of the whole; or, in other words, that the community should guard the rights of each individual member, and that (in return for this protection) each individual should submit to the laws of the community; without which submission of all, it was impossible that protection could be certainly extended to any.

13 Government.

For when society is once formed, government results of course, as necessary to preserve and to keep that society in order. Unless some superior be constituted, whose commands and decisions all the members are bound to obey, they would still remain as in a state of nature, without any judge upon earth to define their several rights, and redress their several wrongs. But as all the members of society are naturally equal, it may be asked, In whose hands are the reins of government to be intrusted? To this the general answer is easy; but the application of it to particular cases has occasioned one half of those mischiefs which are apt to proceed from misguided political zeal. In general, all mankind will agree, that government should be reposed in such persons, in whom those qualities are most likely to be found, the perfection of which is among the attributes of him who is emphatically styled the *Supreme Being*; the three grand requisites, namely, of wisdom, of goodness, and of power: wisdom, to discern the real interest of the community; goodness, to endeavour always to pursue that real interest; and strength or power to carry this knowledge and intention into action. These are the natural foundations of sovereignty, and these are the requisites that ought to be found in every well constituted frame of government.

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How the several forms of government we now see in the world at first actually began, is matter of great uncertainty, and has occasioned infinite disputes. It is not our business or intention to enter into any of them. However they began, or by what right soever they subsist, there is and must be in all of them a supreme, irresistible, absolute, uncontrolled authority, in which the *jura summa imperii*, or the rights of sovereignty, reside. And this authority is placed in those hands, wherein (according to the opinion of the founders of such respective states, either expressly given or collected from their tacit approbation) the qualities requisite for supremacy, wisdom, goodness, and power, are the most likely to be found.

14 Different form. thereof.

The political writers of antiquity will not allow more than three regular forms of government: the first, when the sovereign power is lodged in an aggregate assembly consisting of all the members of a community, which is called a *democracy*; the second, when it is lodged in a council composed of select members, and then it is styled an *aristocracy*; the last, when it is intrusted in the hands of a single person, and then it takes the name of a *monarchy*. All other species of government, they say, are either corruptions of, or reducible to, these three.

By the sovereign power, as was before observed, is meant the making of laws; for wherever that power resides, all others must conform to and be directed by it, whatever appearance the outward form and administration of the government may put on. For it is at any time in the option of the legislature to alter that form and administration by a new edict or rule, and to put the execution of the laws into whatever hands it pleases: and all the other powers of the state must obey the legislative power in the execution of their several functions, or else the constitution is at an end.

In a democracy, where the right of making laws resides in the people at large, public virtue or goodness of intention is more likely to be found than either of the other qualities of government. Popular assemblies are frequently foolish in their contrivance, and weak in their execution; but generally mean to do the thing that is right and just, and have always a degree of patriotism or public spirit. In aristocracies there is more wisdom to be found than in the other forms of government; being composed, or intended to be composed,

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posed, of the most experienced citizens: but there is less honesty than in a republic, and less strength than in a monarchy. A monarchy is indeed the most powerful of any, all the sinews of government being knit and united together in the hand of the prince; but then there is imminent danger of his employing that strength to improvident or oppressive purposes.

Thus these three species of government have all of them their several perfections and imperfections. Democracies are usually the best calculated to direct the end of a law; aristocracies, to invent the means by which that end shall be obtained; and monarchies, to carry those means into execution. And the ancients, as was observed, had in general no idea of any other permanent form of government but these three: for though Cicero declares himself of opinion, "*esse optimè constitutam rempublicam, quæ ex tribus generibus illis, regali, optimo, et populari, sit modicè confusa;*" yet Tacitus treats this notion of a mixed government, formed out of them all, and partaking of the advantages of each, as a visionary whim, and one that, if effected, could never be lasting or secure.

15 British constitution.

But, happily for us of this island, the British constitution has long remained, and we trust will long continue, a standing exception to the truth of this observation. For, as with us the executive power of the laws is lodged in a single person, they have all the advantages of strength and despatch that are to be found in the most absolute monarchy: and, as the legislature of the kingdom is intrusted to three distinct powers, entirely independent of each other; first, the king; secondly, the lords spiritual and temporal, which is an aristocratical assembly of persons selected for their piety, their birth, their wisdom, their valour, or their property; and, thirdly, the house of commons, freely chosen by the people from among themselves, which makes it a kind of democracy; as this aggregate body, actuated by different springs and attentive to different interests, composes the British parliament, and has the supreme disposal of every thing, no innovation can be attempted by either of the three branches, but will be withstood by one of the other two, each branch being armed with a negative power sufficient to repel any new measure which it shall think inexpedient or dangerous.

Here, then, is lodged the sovereignty of the British constitution; and lodged as beneficially as is possible for society. For in no other shape could we be so certain of finding the three great qualities of government so well and so happily united. If the supreme power were lodged in any one of the three branches separately, we must be exposed to the inconveniences of either absolute monarchy, aristocracy, or democracy; and so want two of the three principal ingredients of good polity, either virtue, wisdom, or power. If it were lodged in any two of the branches; for instance, in the king and house of lords; our laws might be providently made and well executed, but they might not always have the good of the people in view: if lodged in the king and commons, we should want that circumspection and mediatory caution, which the wisdom of the peers is to afford: if the supreme rights of legislature were lodged in the two houses only, and the king had no negative upon their proceedings, they might be tempted to encroach upon the royal prerogative, or perhaps to abolish the kingly office, and thereby weaken (if not totally destroy) the strength of the executive power. But the constitutional government of this island is so admirably tempered and confounded, that nothing can endanger or hurt it, but destroying the equilibrium of power between one branch of the legislature and the rest. For if ever it should happen, that the independence of any one of the three should be lost, or that it should become subservient to the views of either of the other two, there would soon be an end of our constitution. The legislature would be changed from that which was originally set up by the general consent and fundamental act of the society, and such a change, however effected, is, according to Mr Locke (who perhaps carries his theory too far), at once an entire dissolution of the bands of government; and the people are thereby reduced to a state of anarchy, with liberty to constitute to themselves a new legislative power.

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Having thus cursorily considered the three usual species of government, and our own singular constitution selected and compounded from them all, we proceed to observe, that, as the power of making laws constitutes the supreme authority, so wherever the supreme authority in any state resides, it is the right of that authority to make laws; that is, in the words of our definition, *to prescribe the rule of civil action.* And this may be discovered from the very end and institution of civil states. For a state is a collective body, composed of a multitude of individuals, united for their safety and convenience, and intending to act together as one man. If it is therefore to act as one man, it ought to act by one uniform will. But, inasmuch as political communities are made up of many natural persons, each of whom has his particular will and inclination, these several wills cannot by any natural union be joined together, or tempered and disposed into a lasting harmony, so as to constitute and produce that one uniform will of the whole. It can therefore be no otherwise produced than by a political union; by the consent of all persons to submit their own private wills to the will of one man, or of one or more assemblies of men, to whom the supreme authority is intrusted; and this will of that one man, or assemblage of men, is in different states, according to their different constitutions, understood to be law.

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Thus far as to the right of the supreme power to make laws: but farther, it is its duty likewise. For since the respective members are bound to conform themselves to the will of the state, it is expedient that they receive directions from the state declaratory of that its will. But it is impossible, in so great a multitude, to give injunctions to every particular man, relative to each particular action, therefore the state establishes general rules, for the perpetual information and direction of all persons in all points, whether of positive or negative duty: and this, in order that every man may know what to look upon as his own, what as another's; what absolute and what relative duties are required at his hands; what is to be esteemed honest, dishonest, or indifferent; what degree every man retains of his natural liberty, and what he has given up as the price of the benefits of society; and after what manner each person is to moderate the use and exercise of those rights which the state assigns him,

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him, in order to promote and secure the public tranquillity.

17 Second branch of the definition, illustrated.

From what has been advanced, the truth of the former branch of our definition is (we trust) sufficiently evident; that "municipal law is a rule of civil conduct, prescribed *by the supreme power in a state*." We proceed now to the latter branch of it; that it is a rule so prescribed, "commanding what is right, and prohibiting what is wrong."

Now, in order to do this completely, it is first of all necessary that the boundaries of right and wrong be established and ascertained by law. And when this is once done, it will follow of course, that it is likewise the business of the law, considered as a rule of civil conduct, to enforce these rights, and to restrain or redress these wrongs. It remains therefore only to consider, in what manner the law is said to ascertain the boundaries of right and wrong; and the methods which it makes to command the one and prohibit the other.

For this purpose, every law may be said to consist of several parts; one, declaratory; whereby the rights to be observed, and the wrongs to be eschewed, are clearly defined and laid down: another, directory; whereby the subject is intrusted and enjoined to observe those rights, and to abstain from the commission of those wrongs: a third, remedial; whereby a method is pointed out to recover a man's private rights, or redress his private wrongs: to which may be added a fourth, usually termed the *sanction* or *vindicatory* branch of the law; whereby it is signified what evil or penalty shall be incurred by such as commit any public wrongs, and transgress or neglect their duty.

18 Declaratory part of the law.

With regard to the first of these, the *declaratory* part of the municipal law; this depends not so much upon the law of revelation or of nature, as upon the wisdom and will of the legislator. This doctrine, which before was slightly touched, deserves a more particular explication. Those rights, then, which God and nature have established, and are therefore called *natural rights*, such as are life and liberty, need not the aid of human laws to be more effectually invested in every man than they are; neither do they receive any additional strength when declared by the municipal laws to be inviolable. On the contrary, no human legislature has power to abridge or destroy them, unless the owner shall himself commit some act that amounts to a forfeiture. Neither do divine or natural *duties* (such as, for instance, the worship of God, the maintenance of children, and the like) receive any stronger sanction from being also declared to be duties by the law of the land. The case is the same as to crimes and misdemeanors, that are forbidden by the superior laws, and therefore styled *mala in se*, such as murder, theft, and perjury; which contract no additional turpitude from being declared unlawful by the inferior legislature. For that legislature in all these cases acts only, as was before observed, in subordination to the Great Lawgiver, transcribing and publishing his precepts. So that, upon the whole, the declaratory part of the municipal law has no force or operation at law, with regard to actions that are naturally and intrinsically right or wrong.

But with regard to things in themslves indifferent, the case is entirely altered. These become either right or wrong, just or unjust, duties or misdemeanors, according as the municipal legislator sees proper, for promoting the welfare of the society, and more effectually carrying on the purposes of civil life. Thus our own common law has declared, that the goods of the wife do instantly upon marriage become the property and right of the husband: and our statute law has declared all monopolies a public offence: yet that right, and this offence, have no foundation in nature; but are merely created by the law, for the purposes of civil society. And sometimes, where the thing itself has its rise from the law of nature, the particular circumstances and mode of doing it become right or wrong, as the laws of the land shall direct. Thus, for instance, in civil duties; obedience to superiors is the doctrine of revealed as well as natural religion: but who those superiors shall be, and in what circumstances, or to what degrees they shall be obeyed, is the province of human laws to determine. And so, as to injuries or crimes, it must be left to our own legislature to decide, in what cases the seizing another's cattle shall amount to the crime of robbery; and where it shall be a justifiable action, as when a landlord takes them by way of distress for rent.

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19 Directory part.

Thus much for the declaratory part of the municipal law: and the *directory* stands much upon the same footing; for this virtually includes the former, the declaration being usually collected from the direction. The law that says, "Thou shalt not steal," implies a declaration that stealing is a crime. And we have seen, that, in things naturally indifferent, the very essence of right and wrong depends upon the direction of the laws to do or to omit them.

20 Remedial part.

The *remedial* part of a law is so necessary a consequence of the two former, that laws must be very vague and imperfect without it. For in vain would rights be declared, in vain directed to be observed, if there were no method of recovering and asserting those rights when wrongfully withheld or invaded. This is what we mean properly, when we speak of the protection of the law. When, for instance, the declaratory part of the law has said, that "the field or inheritance which belonged to Titius's father is vested by his death in Titius," and the diretory part has "forbidden any one to enter on another's property without the leave of the owner;" if Gaius after this will presume to take possession of the land, the remedial part of the law will then interpose its office; will make Gaius restore the possession to Titius, and also pay him damages for the invasion.

With regard to the sanction of laws, or the evil that may attend the breach of public duties; it is observed, that human legislators have for the most part chosen to make the sanction of their laws rather vindicatory than remuneratory, or to consist rather in punishments than in actual particular rewards: Because, in the first place, the quiet enjoyment and protection of all our civil rights and liberties, which are the sure and general consequence of obedience to the municipal law, are in themselves the best and most valuable of all rewards: because also, were the exercise of every virtue to be enforced by the proposal of particular rewards, it were impossible for any state to furnish stock enough for so profuse a bounty; and farther, because the dread of evil is a much more forcible

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principle of human actions than the prospect of good. For which reasons, though a prudent bestowing of rewards is sometimes of exquisite use, yet we find that those civil laws, which enforce and enjoin our duty, do seldom, if ever, propose any privilege or gift to such as obey the law; but do constantly come armed with a penalty denounced against transgressors, either expressly defining the nature and quantity of the punishment, or else leaving it to the discretion of the judges, and those who are intrusted with the care of putting the laws in execution.

21 Vindicatory part.

Of all the parts of a law the most effectual is the *vindicatory*. For it is but lost labour to say, "Do this, or avoid that," unless we also declare, "This shall be the consequence of your noncompliance." We must therefore observe, that the main strength and force of a law consists in the penalty annexed to it. Herein is to be found the principal obligation of human laws.

Legislators and their laws are said to *compel* and *oblige*: not that, by any natural violence, they so constrain a man as to render it impossible for him to act otherwise than as they direct, which is the strict sense of obligation; but because, by declaring and exhibiting a penalty against offenders, they bring it to pass that no man can easily choose to trangress the law; since, by reason of the impending correction, compliance is in a high degree preferable to disobedience. And, even where rewards are proposed as well as punishments threatened, the obligation of the law seems chiefly to consist in the penalty: for rewards, in their nature, can only persuade and allure; nothing is compulsory but punishment.

It has been held true, and very justly, by the principal of our ethical writers, that human laws are binding upon men's consciences. But, if that were the only or most forcible obligation, the good only would regard the laws, and the bad would set them at defiance. And, true as this principle is, it must still be understood with some restriction. It holds, we apprehend, as to *rights*; and that, when the law has determined the field to belong to Titius, it is a matter of conscience no longer to withhold or to invade it. So also in regard to *natural duties*, and such offences as are *mala in se*: here we are bound in conscience, because we are bound by superior laws, before those human laws were in being, to perform the one and abstain from the other. But in relation to those laws which enjoin only positive duties, and forbid only such things as are not *mala in se*, but *mala prohibita* merely, without any intermixture of moral guilt, annexing a penalty to noncompliance; here conscience seems to be no farther concerned, than by directing a submission to the penalty, in case of our breach of those laws: for otherwise the multitude of penal laws in a state would not only be looked upon as an impolitic, but would also be a very wicked, thing; if every such law were a snare for the conscience of the subject. But in these cases the alternative is offered to every man; "either abstain from this, or submit to such a penalty;" and his conscience will be clear whichever side of the alternative he thinks proper to embrace. Thus, by the statutes for preserving the game, a penalty is denounced against every unqualified person that kills a hare, and against every person who possesses a partridge in August. And so too, by other statutes, pecuniary penalties are inflicted for exercising trades without serving an apprenticeship thereto, for erecting cottages without annexing four acres of land to each, for not burying the dead in woollen, for not performing statute work on the public roads, and for innumerable other positive misdemeanors. Now these prohibitory laws do not make the transgression a moral offence, or sin: the only obligation in conscience is to submit to the penalty, if levied. It must, however, be observed, that we are here speaking of laws that are simply and purely penal, where the thing forbidden or enjoined is wholly a matter of indifference, and where the penalty inflicted is an adequate compensation for the civil inconvenience supposed to rise from the offence. But where disobedience to the law involves in it also any degree of public mischief or private injury, there it falls within our former distinction, and is also an offence against conscience.

Of Laws in general.

We have now gone through the definition laid down of a municipal law; and have shown that it is "a rule—of civil conduct—prescribed—by the supreme power in a state—commanding what is right, and prohibiting what is wrong:" in the explication of which we have endeavoured to interweave a few useful principles, concerning the nature of civil government, and the obligation of human laws. Before we conclude this part, it may not be amiss to add a few observations concerning the interpretation of laws.

22 Of the interpretation of laws.

When any doubt arose upon the construction of the Roman laws, the usage was to state the case to the emperor in writing, and take his opinion upon it. This was certainly a bad method of interpretation. To interrogate the legislature to decide particular disputes, is not only endless, but affords great room for partiality and oppression. The answers of the emperor were called his rescripts, and these had in succeeding cases the force of perpetual laws; though they ought to be carefully distinguished, by every rational civilian, from those general constitutions which had only the nature of things for their guide. The emperor Macrinus, as his historian Capitolinus informs us, had once resolved to abolish these rescripts, and retain only the general edicts: he could not bear that the hasty and crude answers of such princes as Commodus and Caracalla should be reverenced as laws. But Justinian thought otherwise, and he has preserved them all. In like manner the canon laws, or decretal epistles of the popes, are all of them rescripts in the strictest sense. Contrary to all true forms of reasoning, they argue from particulars to generals.

The fairest and most rational method to interpret the will of the legislator, is by exploring his intentions at the time when the law was made, by signs the most natural and probable. And these signs are either the words, the context, the subject-matter, the effects and consequence, or the spirit and reason of the law. Let us take a short view of them all.

23

1. *Words* are generally to be understood in their usual and most known signification; not so much regarding the propriety of grammar, as their general and popular use. Thus the law mentioned by Puffendorf, which forbade a layman to lay hands on a priest, was adjudged to extend to him who had hurt a priest with a weapon. Again: Terms of art, or technical terms, must be taken according to the acceptation of the

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the learned in each art, trade, and science. So in the act of settlement, where the crown of England is limited "to the princess Sophia, and the heirs of her body being Protestants," it becomes necessary to call in the assistance of lawyers, to ascertain the precise idea of the words "heirs of her body;" which in a legal sense comprise only certain of her lineal descendants. Lastly, Where words are clearly repugnant in two laws, the latter law takes place of the elder; *leges posteriores priores contrarias abrogant*, is a maxim of universal law, as well as of our own constitutions. And accordingly it was laid down by a law of the twelve tables at Rome, *Quod populus postremum jussit, id jus ratum esto.*

24 2. If words happen to be still dubious, we may establish their meaning from the *context;* with which it may be of singular use to compare a word or a sentence, whenever they are ambiguous, equivocal, or intricate. Thus the proëme, or preamble, is often called in to help the construction of an act of parliament. Of the same nature and use is the comparison of a law with other laws that are made by the same legislator, that have some affinity with the subject, or that expressly relate to the same point. Thus, when the law of England declares murder to be felony without benefit of clergy, we must resort to the same law of England to learn what the benefit of clergy is: and, when the common law censures simoniacal contracts, it affords great light to the subject to consider what the canon law has adjudged to be simony.

25 3. As to the *subject-matter*, words are always to be understood as having a regard thereto; for that is always supposed to be in the eye of the legislator, and all his expressions directed to that end. Thus, when a law of Edward III. forbids all ecclesiastical persons to purchase provisions at Rome, it might seem to prohibit the buying of grain and other victual; but when we consider that the statute was made to repress the usurpations of the papal see, and that the nominations to benefices by the pope were called *provisions*, we shall see that the restraint is intended to be laid upon such provisions only.

26 4. As to the effects and *consequence*, the rule is, That where words bear either none, or a very absurd signification, if literally understood, we must a little deviate from the received sense of them. Therefore the Bolognian law, mentioned by Puffendorf, which enacted "that whoever drew blood in the streets should be punished with the utmost severity," was held after long debate not to extend to the surgeon who opened the vein of a person who fell down in the street with a fit.

27 5. But, lastly, The most universal and effectual way of discovering the true meaning of a law, when the words are dubious, is by considering the *reason* and *spirit* of it, or the cause which moved the legislator to enact it. For when this reason ceases, the law itself ought likewise to cease with it. An instance of this is given in a case put by Cicero, or whoever was the author of the rhetorical treatise inscribed to Herennius. There was a law, That those who in a storm forsook the ship should forfeit all property therein, and the ship and lading should belong entirely to those who staid in it. In a dangerous tempest, all the mariners forsook the ship, except only one sick passenger, who by reason of his disease was unable to get out and escape. By chance the ship came safe to port. The sick man kept possession, and claimed the benefit of the law. Now here all the learned agree, that the sick man is not within the reason of the law; for the reason of making it was, to give encouragement to such as should venture their lives to save the vessel: but this is a merit which he could never pretend to, who neither staid in the ship upon that account, nor contributed any thing to its preservation.

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28 From this method of interpreting laws by the reason of them, arises what we call *equity:* which is thus defined by Grotius, "the correction of that, wherein the law (by reason of its universality) is deficient." For since in laws all cases cannot be foreseen or expressed, it is necessary, that, when the general decrees of the law come to be applied to particular cases, there should be somewhere a power vested of defining those circumstances, which (had they been foreseen) the legislator himself would have expressed. And these are the cases which, according to Grotius, *lex non exactè definit, sed arbitrio boni viri permittit.* Equity.

Equity thus depending, essentially, upon the particular circumstances of each individual case, there can be no established rules and fixed precepts of equity laid down, without destroying its very essence, and reducing it to a positive law. And, on the other hand, the liberty of considering all cases in an equitable light must not be indulged too far; lest thereby we destroy all law, and leave the decision of every question entirely in the breast of the judge. And law, without equity, though hard and disagreeable, is much more desirable for the public good, than equity without law; which would make every judge a legislator, and introduce infinite confusion: as there would then be almost as many different rules of action laid down in our courts, as there are differences of capacity and sentiment in the human mind.

29 Having thus considered the nature of laws in general, we shall proceed to give a view of the particular law of our own country; 1. Of England; 2. Of Scotland. The English law, however, being too extensive to admit of detail in a body, we can only here give such a sketch of it as may be sufficient to show the connexion of its parts; but the principal of these parts themselves are explained at large, under their proper names, in the general alphabet.—A contrary method is followed with regard to the law of Scotland. This being less extensive, is given in a body, with all its parts not only in regular connection, but sufficiently explained; these parts, again, not being explained in the order of the alphabet, but marked with numerical references to their explanations in the system. Plan of the two following parts.

PART

PART II. THE LAW OF ENGLAND.

INTRODUCTION.

THE municipal law of England, or the rule of civil conduct prescribed to the inhabitants of that kingdom, may with sufficient propriety be divided into two kinds: the *lex non scripta*, the unwritten or common law; and the *lex scripta*, the written or statute law.

30 Common law.

The *lex non scripta*, or unwritten law, includes not only general customs, or the common law properly so called; but also the particular customs of certain parts of the kingdom, and likewise these particular laws that are by custom observed only in certain courts and jurisdictions.

In calling these parts of the law *leges non scriptæ*, we would not be understood as if all those laws were at present merely oral, or communicated from the former ages to the present solely by word of mouth. It is true indeed, that in the profound ignorance of letters which formerly overspread the whole western world, all laws were entirely traditional; for this plain reason, that the nations among which they prevailed had but little idea of writing. Thus the British as well as the Gallic druids committed all their laws as well as learning to memory; and it is said of the primitive Saxons here, as well as their brethren on the continent, that *leges sola memoria et usu retinebant*. But, with us at present, the monuments and evidences of our legal customs are contained in the records of the several courts of justice, in books of reports and judicial decisions, and in the treatises of learned sages of the profession, preserved and handed down to us from the times of highest antiquity. However, we therefore style these parts of our law *leges non scriptæ*, because their original institution and authority are not set down in writing, as acts of parliament are; but they receive their binding power, and the force of laws, by long and immemorial usage, and by their universal reception throughout the kingdom: in like manner as Aulus Gellius defines the *jus non scriptum* to be that which is *tacito et illiterato hominum consensu et moribus expressum*.

Our ancient lawyers, and particularly Fortescue, insist with abundance of warmth, that these customs are as old as the primitive Britons, and continued down through the several mutations of government and inhabitants to the present time, unchanged and unadulterated. This may be the case as to some. But in general, as Mr Selden in his notes observes, this assertion must be understood with many grains of allowance; and ought only to signify, as the truth seems to be, that there never was any formal exchange of one system of laws for another: though doubtless, by the intermixture of adventitious nations, the Romans, the Picts, the Saxons, the Danes, and the Normans, they must insensibly have introduced and incorporated many of their own customs with those that were before established; thereby, in all probability, improving the texture and wisdom of the whole, by the accumulated wisdom of divers particular countries. Our laws, saith Lord Bacon, are mixed as our language; and as our language is so much the richer, the laws are the more complete.

And indeed our antiquarians and first historians do all positively assure us, that our body of laws is of this compound nature. For they tell us, that in the time of Alfred the local customs of the several provinces of the kingdom were grown so various, that he found it expedient to compile his dome book, or *liber judicialis*, for the general use of the whole kingdom. This book is said to have been extant so late as the reign of Edward IV. but is now unfortunately lost. It contained, we may probably suppose, the principal maxims of the common law, the penalties for misdemeanors, and the forms of judicial proceedings. Thus much may at least be collected from that injunction to observe it, which we find in the laws of King Edward the Elder, the son of Alfred. *Omnibus qui reipublicæ præsunt etiam atque etiam mando, ut omnibus æquos se præbeant judices perinde ac in judiciali libro scriptum habetur: nec quiquam formident quin jus commune audacter liberèque dicant.*

But the irruption and establishment of the Danes in England, which followed soon after, introduced new customs, and caused this code of Alfred in many provinces to fall into disuse, or at least to be mixed and debased with other laws of a coarser alloy. So that, about the beginning of the 11th century, there were three principal systems of laws prevailing in different districts. 1. The *Mercen Lage*, or Mercian laws, which were observed in many of the inland counties, and those bordering on the principality of Wales, the retreat of the ancient Britons; and therefore very probably intermixed with the British or Druidical customs. 2. The *West Saxon Lage*, or laws of the West Saxons, which obtained in the counties to the south and west of the island, from Kent to Devonshire. These were probably much the same with the laws of Alfred above mentioned, being the municipal law of the far most considerable part of his dominions, and particularly including Berkshire, the seat of his peculiar residence. 3. The *Dane Lage*, or Danish law, the very name of which speaks its original and composition. This was principally maintained in the rest of the midland counties, and also on the eastern coast, the part most exposed to the visits of that piratical people. As for the very northern provinces, they were at that time under a distinct government.

Out of these three laws, Roger Hoveden and Ranulphus Cestrensis inform us, King Edward the Confessor extracted one uniform law, or digest of laws, to be observed throughout the whole kingdom; though Hoveden and the author of an old manuscript chronicle assure us likewise, that this work was projected and begun by his grandfather King Edgar. And indeed a general digest of the same nature has been constantly found expedient, and therefore put in practice by other great nations, which were formed from an assemblage of little provinces, governed by peculiar customs. As in Portugal, under King Edward, about the beginning of the 15th century. In Spain, under Alonzo X. who about

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about the year 1250 executed the plan of his father St Ferdinand, and collected all the provincial customs into one uniform law, in the celebrated code entitled *Las Partidas*. And in Sweden, about the same era, a universal body of common law was compiled out of the particular customs established by the laghman of every province, and entitled the *Land's Lagh*, being analogous to the common law of England.

Both these undertakings of King Edgar and Edward the Confessor, seem to have been no more than a new edition, or fresh promulgation, of Alfred's code or dome book, with such additions and improvements as the experience of a century and a half had suggested. For Alfred is generally styled by the same historians the *legum Anglicanarum conditor*, as Edward the Confessor is the *restitutor*. These, however, are the laws which our histories so often mention under the name of the *laws of Edward the Confessor;* which our ancestors struggled so hardly to maintain, under the first princes of the Norman line; and which subsequent princes so frequently promised to keep and to restore, as the most popular act they could do, when pressed by foreign emergencies or domestic discontents. These are the laws, that so vigorously withstood the repeated attacks of the civil law; which established in the 12th century a new Roman empire over the most of the states on the continent: states that have lost, and perhaps upon that account, their political liberties; while the free constitution of England, perhaps upon the same account, has been rather improved than debased. These, in short, are the laws which gave rise and origin to that collection of maxims and customs which is now known by the name of the *common law*: A name either given to it, in contradistinction to other laws, as the statute law, the civil law, the law merchant, and the like; or, more probably, as a law common to all the realm, the *jus commune* or *folcright*, mentioned by King Edward the Elder, after the abolition of the several provincial customs, and particular laws before mentioned.

But though this is the most likely foundation of this collection of maxims and customs, yet the maxims and customs so collected, are of higher antiquity than memory or history can reach: nothing being more difficult than to ascertain the precise beginning and first spring of an ancient and long established custom. Whence it is, that in our law the goodness of a custom depends upon its having been used time out of mind; or, in the solemnity of our legal phrase, time whereof the memory of man runneth not to the contrary. This it is that gives it its weight and authority; and of this nature are the maxims and customs which compose the common law, or *lex non scripta*, of this kingdom.

[3] Of three kinds.

This unwritten, or common law, is properly distinguishable into three kinds: 1. General customs; which are the universal rule of the whole kingdom, and form the common law in its stricter and more usual signification. 2. Particular customs; which for the most part affect only the inhabitants of particular districts. 3. Certain particular laws; which by custom are adopted and used by some particular courts, of pretty general and extensive jurisdiction.

[3] First branch of the unwritten law:—General customs.

I. As to general customs, or the common law properly so called; this is that law, by which proceedings and determinations in the king's ordinary courts of justice are guided and directed. This, for the most part, settles the course in which lands descend by inheritance; the manner and form of acquiring and transferring property; the solemnities and obligation of contracts; the rules of expounding wills, deeds, and acts of parliament; the respective remedies of civil injuries; the several species of temporal offences, with the manner and degree of punishment, and an infinite number of minuter particulars, which diffuse themselves as extensively as the ordinary distribution of common justice requires. Thus, for example, that there shall be four superior courts of record, the chancery, the king's bench, the common pleas, and the exchequer;—that the eldest son alone is heir to his ancestor;—that property may be acquired and transferred by writing;—that a deed is of no validity unless sealed and delivered;—that wills shall be construed more favourably, and deeds more strictly;—that money lent upon bond is recoverable by action of debt;—that breaking the public peace is an offence, and punishable by fine and imprisonment:—all these are doctrines that are not set down in any written statute or ordinance; but depend merely upon immemorial usage, that is, upon common law, for their support.

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Some have divided the common law into two principal grounds or foundations: 1. Established customs; such as that, where there are three brothers, the eldest brother shall be heir to the second, in exclusion of the youngest; and, 2. Established rules and maxims; as, "that the king can do no wrong, that no man shall "be bound to accuse himself," and the like. But these seem to be one and the same thing. For the authority of these maxims rests entirely upon general reception and usage; and the only method of proving that this or that maxim is a rule of the common law, is by showing that it hath been always the custom to observe it.

But here a very natural, and very material, question arises: How are these customs or maxims to be known, and by whom is their validity to be determined? The answer is, By the judges in the several courts of justice. They are the depository of the laws; the living oracles who must decide in all cases of doubt, and who are bound by an oath to decide according to the law of the land. Their knowledge of that law is derived from experience and study; from the *viginti annorum lucubrationes*, which Fortescue mentions; and from being long personally accustomed to the judicial decisions of their predecessors. And indeed these judicial decisions are the principal and most authoritative evidence, that can be given, of the existence of such a custom as shall form a part of the common law. The judgment itself, and all the proceedings previous thereto, are carefully registered and preserved under the name of *records*, in public repositories set apart for that particular purpose; and to them frequent recourse is had, when any critical question arises, in the determination of which former precedents may give light or assistance. And therefore, even so early as the Conquest, we find the *præteritorum memoria eventorum* reckoned up as one of the chief qualifications of those who were held to be *legibus patriæ optime instituti*. For it is an established rule, To abide by former precedents, where the same points come again in litigation, as well to keep the scale of justice even and steady, and not liable to waver

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with every new judge's opinion; as also because the law in that case being solemnly declared and determined, what before was uncertain, and perhaps indifferent, is now become a permanent rule, which is not in the breast of any subsequent judge to alter or vary from according to his private sentiments: he being sworn to determine, not according to his own private judgement, but according to the known laws and customs of the land; not delegated to pronounce a new law, but to maintain and expound the old one. Yet this rule admits of exception, where the former determination is most evidently contrary to reason; much more if it be contrary to the divine law. But even in such cases the subsequent judges do not pretend to make a new law, but to vindicate the old one from misrepresentation. For if it be found that the former decision is manifestly absurd or unjust, it is declared, not that such a sentence was bad law, but that it was not law; that is, that it is not the established custom of the realm, as has been erroneously determined. And hence it is that our lawyers are with justice so copious in their encomiums on the reason of the common law: that they tell us, that the law is the perfection of reason, that it always intends to conform thereto, and that what is not reason is not law. Not that the particular reason of every rule in the law, can at this distance of time be always precisely assigned; but it is sufficient that there be nothing in the rule flatly contradictory to reason, and then the law will presume it to be well founded. And it hath been an ancient observation in the laws of England, that whenever a standing rule of law, of which the reason perhaps could not be remembered or discerned, hath been wantonly broke in upon by statutes or new resolutions, the wisdom of the rule hath in the end appeared from the inconveniences that have followed the innovation.

The doctrine of the law then is this: That precedents and rules must be followed, unless flatly absurd or unjust; for though their reason be not obvious at first view, yet we owe such a deference to former times as not to suppose they acted wholly without consideration. To illustrate this doctrine by examples. It has been determined, time out of mind, that a brother of the half blood shall never succeed as heir to the estate of his half brother, but it shall rather escheat to the king, or other superior lord. Now this is a positive law, fixed and established by custom; which custom is proved by judicial decisions; and therefore can never be departed from by any modern judge without a breach of his oath and the law. For herein there is nothing repugnant to natural justice; though the artificial reason of it, drawn from the feodal law, may not be quite obvious to every body. And therefore on account of a supposed hardship upon the half brother, a modern judge might wish it had been otherwise settled, yet it is not in his power to alter it. But if any court were now to determine, that an elder brother of the half blood might enter upon and seize any lands that were purchased by his younger brother, no subsequent judges would scruple to declare that such prior determination was unjust, was unreasonable, and therefore was not law. So that the law, and the opinion of the judge, are not always convertible terms, or one and the same thing; since it sometimes may happen that the judge may mistake the law. Upon the whole, however, we may take it as a general rule, "That the decisions of courts of justice are the evidence of what is common law," in the same manner as in the civil law, what the emperor had once determined was to serve for a guide for the future.

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The decisions therefore of courts are held in the highest regard, and are not only preserved as authentic records in the treasuries of the several courts, but are handed out to public view in the numerous volumes of reports which furnish the lawyers library. These reports are histories of the several cases, with a short summary of the proceedings, which are preserved at large in the record; the arguments on both sides, and the reasons the court gave for its judgment: taken down in short notes by persons present at the determination. And these serve as indexes to, and also to explain, the records; which always, in matters of consequence and nicety, the judges direct to be searched. The reports are extant in a regular series from the reign of King Edward II. inclusive; and from his time to that of Henry VIII. were taken by the prothonotaries, or chief scribes of the court, at the expence of the crown, and published annually, whence they are known under the denomination of the *year books*. And it is much to be wished that this beneficial custom had, under proper regulations, been continued to this day; for though King James I. at the instance of Lord Bacon, appointed two reporters, with a handsome stipend, for this purpose; yet that wise institution was soon neglected, and from the reign of Henry VIII. to the present time this task has been executed by many private and contemporary hands; who sometimes through haste and inaccuracy, sometimes through mistake and want of skill, have published very crude and imperfect (perhaps contradictory) accounts of one and the same determination. Some of the most valuable of the ancient reports are those published by Lord Chief Justice Coke; a man of infinite learning in his profession, though not a little infected with the pedantry and quaintness of the times he lived in, which appear strongly in all his works. However, his writings are so highly esteemed, that they are generally cited without the author's name (A).

Besides these reporters, there are also other authors, to whom great veneration and respect are paid by the students of the common law. Such are Glanvil and Bracton, Britton and Fleta, Littleton and Fitzherbert, with

(A) His reports, for instance, are styled, κατ' ἐξοχήν, "the reports;" and in quoting them we usually say, 1 or 2 Rep. not 1 or 2 Coke's Rep. as in citing other authors. The reports of Judge Croke are also cited in a peculiar manner, by the name of those princes in whose reigns the cases reported in his three volumes were determined; viz. Queen Elizabeth, King James, King Charles I.; as well as by the number of each volume. For sometimes we call them 1, 2, and 3 Cro.; but more commonly Cro. Eliz. Cro. Jac. and Cro. Car.

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with some others of ancient date, whose treatises are cited as authority; and are evidence that cases have formerly happened in which such and such points were determined, which are now become settled and first principles. One of the last of these methodical writers in point of time, whose works are of any intrinsic authority in the courts of justice, and do not entirely depend on the strength of their quotations from older authors, is the same learned judge we have just mentioned, Sir Edward Coke; who hath written four volumes of Institutes, as he is pleased to call them, though they have little of the institutional method to warrant such a title. The first volume is a very extensive comment upon a little excellent treatise of tenures, compiled by Judge Littleton in the reign of Edward IV. This comment is a rich mine of valuable common law learning, collected and heaped together from the ancient reports and year books, but greatly defective in method (B). The second volume is a comment upon many old acts of parliament, without any systematical order; the third a more methodical treatise of the pleas of the crown; and the fourth, an account of the several species of courts (C).

And thus much for the first ground and chief corner-stone of the laws of England; which is generally immemorial custom, or common law, from time to time declared in the decisions of the courts of justice; which decisions are preserved among the public records, explained in the reports, and digested for general use in the authoritative writings of the venerable sages of the law.

The Roman law, as practised in the times of its liberty, paid also a great regard to custom; but not so much as our law: it only then adopting it when the written law was deficient; though the reasons alleged in the Digest will fully justify our practice in making it of equal authority with, when it is not contradicted by, the written law. "For since (says Julianus) the written law binds us for no other reason but because it is approved by the judgment of the people, therefore those laws which the people have approved without writing ought also to bind every body. For where is the difference whether the people declare their assent to a law by a suffrage, or by an uniform course of acting accordingly." Thus did they reason while Rome had some remains of her freedom; but when the imperial tyranny came to be fully established, the civil laws speak a very different language. *Quod principi placuit legis habet vigorem, cum populus ei et in eum omne suum imperium et potestatem conferat*, says Ulpian. *Imperator solus et conditor et interpres legis existimatur*, says the Code. And again, *Sacrilegii instar est rescripto principis obviari.* And indeed it is one of the characteristic marks of British liberty, that the common law depends upon custom: which carries this internal evidence of freedom along with it, that it probably was introduced by the voluntary consent of the people.

II. The second branch of the unwritten laws of England are particular customs, or laws which affect only the inhabitants of particular districts. Law of England.

33 Second branch of the unwritten law:—Particular customs.

These particular customs, or some of them, are without doubt the remains of that multitude of local customs before mentioned, out of which the common law, as it now stands, was collected at first by King Alfred, and afterwards by King Edgar and Edward the Confessor: each district mutually sacrificing some of its own special usages, in order that the whole kingdom might enjoy the benefit of one uniform and universal system of laws. But, for reasons that have been now long forgotten, particular counties, cities, towns, manors, and lordships, were very early indulged with the privilege of abiding by their own customs, in contradistinction to the rest of the nation at large: which privilege is confirmed to them by several acts of parliament.

Such is the custom of gavelkind in Kent and some other parts of the kingdom (though perhaps it was also general till the Norman conquest); which ordains among other things, that not the eldest son only of the father shall succeed to his inheritance, but all the sons alike; and that, though the ancestor be attainted and hanged, yet the heir shall succeed to his estate, without any escheat to the lord.—Such is the custom that prevails in divers ancient boroughs, and therefore called *borough English*, that the youngest son shall inherit the estate, in preference to all his elder brothers.—Such is the custom, in other boroughs, that a widow shall be entitled, for her dower, to all her husband's lands; whereas at the common law she shall be endowed of one-third part only.—Such also are the special and particular customs of manors, of which every one has more or less, and which bind all the copyhold tenants that hold of the said manors.—Such likewise is the custom of holding divers inferior courts, with power of trying causes, in cities and trading towns; the right of holding which, when no royal grant can be shown, depends entirely upon immemorial and established usuage.—Such, lastly, are the many particular customs within the city of London, with regard to trade, apprentices, widows, orphans, and a variety of other matters. All these are contrary to the general law of the land, and are good only by special usage; though the customs of London are also confirmed by act of parliament.

To this head may most properly be referred a particular system of customs used only among one set of the king's subjects, called the *custom of merchants*, or *lex mercatoria:* which, however different from the general rules of the common law, is yet ingrafted into it, and made a part of it; being allowed for the benefit of trade, to be of the utmost validity in all commercial transactions; for it is a maxim of law, that *cuilibet in sua arte credendum est.*

The rules relating to particular customs regard either 34

(B) It is usually cited either by the name of Co. Litt. or as 1 Inst.

(C) These are cited as 2, 3, or 4 Inst. without any author's name: An honorary distinction, which, we observed, is paid to the works of no other writer; the generality of reports and other tracts being quoted in the name of the compiler, as 2 Ventris, 4 Leonard, 1 Siderfin, and the like.

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ther the *proof* of their existence; their *legality* when proved; or their usual method of *allowance*. And first we will consider the rules of *proof*.

As to gavelkind and borough English, the law takes particular notice of them; and there is no occasion to prove, that such customs actually exist, but only that the lands in question are subject thereto. All other private customs must be particularly pleaded; and as well the existence of such customs must be shown, as that the thing in dispute is within the customs alleged. The trial in both cases (both to show the existence of the custom, as, "That in the manor of Dale lands shall descend only to the heirs male, and never to the heirs female;" and also to show "that the lands in question are within that manor") is by a jury of twelve men, and not by the judges; except the same particular custom has been before tried, determined, and recorded, in the same court.

The customs of London differ from all others in point of trial: for if the existence of the custom be brought in question, it shall not be tried by a jury, but by a certificate from the lord mayor and aldermen by the mouth of their recorder; unless it be such a custom as the corporation is itself interested in, as a right of taking toll, &c. for then the law permits them not to certify on their own behalf.

When a custom is actually proved to exist, the next inquiry is into the legality of it; for if it is not a good custom, it ought to be no longer used. *Malus usus abolendus est*, is an established maxim of the law. To make a particular custom good, the following are necessary requisites:

35 Rules in establishing customs.

1. That it have been used so long, that the memory of man runneth not to the contrary. So that if any one can show the beginning of it, it is no good custom. For which reason, no custom can prevail against an express act of parliament; since the statute itself is a proof of a time when such a custom did not exist.

2. It must have been *continued*. Any interruption would cause a temporary ceasing: the revival gives it a new beginning, which will be within time of memory, and thereupon the custom will be void. But this must be understood with regard to an interruption of the right: for an interruption of the possession only for 10 or 20 years, will not destroy the custom. As if the inhabitants of a parish have a customary right of watering their cattle at a certain pool, the custom is not destroyed, though they do not use it for 10 years; it only becomes more difficult to prove: but if the right be anyhow discontinued for a day, the custom is quite at an end.

3. It must have been *peaceable*, and acquiesced in; not subject to contention and dispute. For as customs owe their original to common consent, their being immemorially disputed, either at law or otherwise, is a proof that such consent was wanting.

4. Customs must be *reasonable*; or rather, taken negatively, they must not be unreasonable. Which is not always, as Sir Edward Coke says, to be understood of every unlearned man's reason; but of artificial and legal reason, warranted by authority of law. Upon which account a custom may be good, though the particular reason of it cannot be assigned; for it sufficeth, if no good legal reason can be assigned against it. Thus a custom in a parish, that no man shall put his beasts into the common, till the third of October, would be good; and yet it would be hard to show the reason why that day in particular is fixed upon rather than the day before or after. But a custom that no cattle shall be put in till the lord of the manor has first put in his, is unreasonable, and therefore bad: for peradventure the lord will never put in his; and then the tenants will lose all their profits.

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5. Customs ought to be *certain*. A custom, that lands shall descend to the most worthy of the owner's blood, is void; for how shall this worth be determined? but a custom to descend to the next male of the blood, exclusive of females, is certain, and therefore good. A custom to pay twopence an acre in lieu of tithes, is good; but to pay sometimes twopence and sometimes threepence, as the occupier of the land pleases, is bad for its uncertainty. Yet a custom, to pay a year's improved value for a fine on a copyhold estate, is good; though the value is a thing uncertain: for the value may at any time be ascertained; and the maxim of law is, *Id certum est, quod certum reddi potest.*

6. Customs, though established by consent, must be (when established) *compulsory*: and not left to the option of every man, whether he will use them or no. Therefore a custom, that all the inhabitants shall be rated toward the maintenance of a bridge, will be good; but a custom, that every man is to contribute thereto at his own pleasure, is idle and absurd, and indeed no custom at all.

7. Lastly, Customs must be *consistent* with each other. One custom cannot be set up in opposition to another. For if both are really customs, then both are of equal antiquity, and both established by mutual consent: which to say of contradictory customs, is absurd. Therefore, if one man prescribes that by custom he has a right to have windows looking into another's garden; the other cannot claim a right by custom to stop up or obstruct those windows: for these two contradictory customs cannot both be good, nor both stand together. He ought rather to deny the existence of the former custom.

Next, as to the *allowance* of special customs. Customs, in derogation of the common law, must be construed strictly. Thus, by the custom of gavelkind, an infant of 15 years may by one species of conveyance (called *a deed of feoffment*) convey away his lands in fee simple, or for ever. Yet this custom does not empower him to use any other conveyance, or even to lease them for seven years: for the custom must be strictly pursued. And, moreover, all special customs must submit to the king's prerogative. Therefore, if the king purchases lands of the nature of gavelkind, where all the sons inherit equally; yet, upon the king's demise, his eldest son shall succeed to those lands alone. And thus much for the second part of the *leges non scriptæ*, or those particular customs which affect particular persons or districts only.

36 Third branch of the unwritten law.

III. The third branch of them are those peculiar laws which by custom are adopted and used only in certain peculiar courts and jurisdictions. And by these are understood the civil and canon laws.

It may seem a little improper, at first view, to rank these laws under the head of *leges non scriptæ*, or unwritten laws, seeing they are set forth by authority in their

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their pandects, their codes, and their institutions; their councils, decrees, and decretals; and enforced by an immense number of expositions, decisions, and treatises of the learned in both branches of the law. But this is done after the example of Sir Matthew Hale, because it it most plain, that it is not on account of their being written laws, that either the canon law, or the civil law, have any obligation within this kingdom: neither do their force and efficacy depend upon their own intrinsic authority; which is the case of our written laws or acts of parliament. They bind not the subjects of England, because their materials were collected from popes or emperors, were digested by Justinian, or declared to be authentic by Gregory. These considerations give them no authority here: for the legislature of England doth not, nor ever did, recognize any foreign power, as superior or equal to it in this kingdom: or as having the right to give law to any the meanest of its subjects. But all the strength that either the papal or imperial laws have obtained in this realm (or indeed in any other kingdom in Europe) is only because they have been admitted and received by immemorial usage and custom in some particular cases, and some particular courts; and then they form a branch of the *leges non scriptæ*, or customary law: or else, because they are in some other cases introduced by consent of parliament, and then they owe their validity to the *leges scriptæ*, or statute law. This is expressly declared in those remarkable words of the statute 25 Hen. VIII. c. 41. addressed to the king's royal majesty.—"This your grace's realm, recognizing no superior under God but only your grace, hath been and is free from subjection to any man's laws, but only to such as have been devised, made, and ordained within this realm for the wealth of the same; or to such other as, by sufferance of your grace and your progenitors, the people of this your realm have taken at their free liberty, by their own consent, to be used among them; and have bound themselves by long use and custom to the observance of the same: not as to the observance of the laws of any foreign prince, potentate, or prelate; but as to the customed and ancient laws of this realm, originally established as laws of the same, by the said sufferance, consents, and custom; and none otherwise."

37 Civil law.

1. By the civil law, absolutely taken, is generally understood the civil or municipal law of the Roman empire, as comprised in the Institutes, the Code, and the Digest of the emperor Justinian, and the novel constitutions of himself and some of his successors; of which it may not be amiss to give a short and general account.

The Roman law (founded first upon the regal constitutions of their ancient kings, next upon the 12 tables of the decemviri, then upon the laws or statutes enacted by the senate or people, the edicts of the prætor, and the *responsa prudentium* or opinions of learned lawyers, and lastly upon the imperial decrees or constitutions of successive emperors) had grown to so great a bulk, or, as Livy expresses it, *tam immensus aliarum super alias acervatarum legum cumulus*, that they were computed to be many camels load by an author who preceded Justinian. This was in part remedied by the collection of three private lawyers, Gregorius, Hermogenes, and Papirius; and then by the emperor Theodosius the younger, by whose orders a code was compiled, A. D. 438, being a methodical collection of all the imperial constitutions then in force: which Theodosian code was the only book of civil law received as authentic in the western part of Europe, till many centuries after: and to this it is probable that the Franks and Goths might frequently pay some regard, in framing legal constitutions for their newly erected kingdoms. For Justinian commanded only in the eastern remains of the empire; and it was under his auspices, that the present body of civil law was compiled and finished by Trebonian and other lawyers, about the year 533.

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This consists of, 1. The Institutes; which contain the elements or first principles of the Roman law, in four books. 2. The Digests or Pandects, in 50 books; containing the opinions and writings of eminent lawyers, digested in a systematical method. 3. A new code, or collection of imperial constitutions; the lapse of a whole century having rendered the former code of Theodosius imperfect. 4. The Novels, or new constitutions, posterior in time to the other books, and amounting to a supplement to the code: containing new decrees of successive emperors, as new questions happened to arise. These form the body of Roman law, or *corpus juris civilis*, as published about the time of Justinian: which, however, fell soon into neglect and oblivion, till about the year 1130, when a copy of the Digests was found at Amalfi in Italy; which accident, concurring with the policy of the Roman ecclesiastics, suddenly gave new vogue and authority to the civil law, introduced it into several nations, and occasioned that mighty inundation of voluminous comments, with which this system of law, more than any other, is now loaded.

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39 Canon law,

2. The canon law is a body of Roman ecclesiastical law, relative to such matters as that church either has, or pretends to have, the proper jurisdiction over. This is compiled from the opinions of the ancient Latin fathers, the decrees of general councils, the decretal epistles and bulls of the holy see. All which lay in the same disorder and confusion as the Roman civil law: till, about the year 1151, one Gratian an Italian monk, animated by the discovery of Justinian's Pandects, reduced the ecclesiastical constitutions also into some method, in three books; which he entitled *Concordia discordantium canonum*, but which are generally known by the name of *Decretum Gratiani*. These reached as low as the time of Pope Alexander III. The subsequent papal decrees, to the pontificate of Gregory IX. were published in much the same method under the auspices of that pope, about the year 1230, in five books; entitled *Decretalia Gregorii noni*. A sixth book was added by Boniface VIII. about the year 1298, which is called *Sextus Decretalium*. The Clementine constitutions, or decrees of Clement V. were in like manner authenticated in 1317 by his successor John XXII.; who also published 20 constitutions of his own, called *Extravagantes Joannis:* all which in some measure answer to the novels of the civil law. To these have been since added some decrees of later popes, in five books, called *Extravagantes Communes*. And all these together, Gratian's decree, Gregory's decretals, the sixth decretal, the Clementine constitutions, and the Extravagants of John and his successors,

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from the *corpus juris canonici*, or body of the Roman canon law.

Besides these pontifical collections, which during the times of popery were received as authentic in this island, as well as in other parts of Christendom, there is also a kind of national canon law, composed of legatine and provincial constitutions, and adapted only to the exigencies of this church and kingdom. The legatine constitutions were ecclesiastical laws, enacted in national synods, held under the cardinals Otho and Othobon, legates from Pope Gregory IX. and Pope Clement IV. in the reign of King Henry III. about the years 1220 and 1268. The provincial constitutions are principally the decrees of provincial synods, held under divers archbishops of Canterbury, from Stephen Langton in the reign of Henry III. to Henry Chichele in the reign of Henry V.; and adopted also by the province of York in the reign of Henry VI. At the dawn of the Reformation, in the reign of King Henry VIII. it was enacted in parliament, that a review should be had of the canon law; and till such review should be made, all canons, constitutions, ordinances and synodals provincial, being then already made, and not repugnant to the law of the land or the king's prerogative, should still be used and executed. And, as no such review has yet been perfected, upon this statute now depends the authority of the canon law in England.

As for the canons enacted by the clergy under James I. in the year 1603, and never confirmed in parliament, it has been solemnly adjudged upon the principles of law and the constitution, that where they are not merely declaratory of the ancient canon law, but are introductory of new regulations, they do not bind the laity, whatever regard the clergy may think proper to pay them.

40 There are four species of courts, in which the civil and canon laws are permitted under different restrictions to be used. 1. The courts of the archbishop and bishops, and their derivative officers; usually called *courts Christian*, (*curiæ Christianitatis*), or the *ecclesiastical courts*. 2. The military courts. 3. The courts of admiralty. 4. The courts of the two universities. In all, their reception in general, and the different degrees of that reception, are grounded entirely upon custom; corroborated in the latter instance by act of parliament, ratifying those charters which confirm the customary law of the universities. The more minute consideration of them will fall under their proper articles. It will suffice at present to remark a few particulars relative to them all, which may serve to inculate more strongly the doctrine laid down concerning them.

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1. And first, The courts of common law have the superintendency over these courts; to keep them within their jurisdictions; to determine wherein they exceed them; to restrain and prohibit such excess; and (in case of contumacy) to punish the officer who executes, and in some cases the judge who enforces, the sentence so declared to be illegal.

2. The common law has reserved to itself the exposition of all such acts of parliament, as concern either the extent of these courts, or the matters depending before them. And therefore, if these courts either refuse to allow these acts of parliament, or will expound them in any other sense than what the common law puts upon them, the king's court at Westminster will grant prohibitions to restrain and controul them.

3. An appeal lies from all these courts to the king, in the last resort; which proves that the jurisdiction exercised in them is derived from the crown of England, and not from any foreign potentate, or intrinsic authority of their own.—And, from these three strong marks and ensigns of superiority, it appears beyond a doubt, that the civil and canon laws, though admitted in some cases by custom in some courts, are only subordinate and *leges sub graviori lege;* and that thus admitted, restrained, altered, new-modelled, and amended, they are by no means with us a distinct independent species of laws, but are inferior branches of the customary or unwritten laws of England, properly called the *king's ecclesiastical, the king's military, the king's maritime, or the king's academical laws.*

41 The written law.

Let us next proceed to the *leges scriptæ*, the written laws of the kingdom; which are statutes, acts, or edicts, made by the king's majesty, by and with the advice of the lords spiritual and temporal and commons in parliament assembled. The oldest of these now extant, and printed in our statute books, is the famous *magna charta*, as confirmed in parliament 9 Hen. III. though doubtless there were many acts before that time, the records of which are now lost, and the determinations of them perhaps at present currently received for the maxims of the old common law.

The manner of making these statutes being explained under the articles BILL and PARLIAMENT, we shall here only take notice of the different kinds of statutes; and of some general rules with regard to their construction (D).

42 Kinds of statutes.

First, As to their several kinds. Statutes are either *general*

(D) The method of citing these acts of parliament is various. Many of the ancient statutes are called after the name of the place where the parliament was held that made them; as the statutes of Merton and Marleberge, of Westminster, Glocester, and Winchester. Others are denominated entirely from their subject; as the statutes of Wales and Ireland, the *articuli cleri*, and the *prerogativa regis*. Some are distinguished by their initial words, a method of citing very ancient; being used by the Jews, in denominating the books of the Pentateuch; by the Christian church, in distinguishing their hymns and divine offices; by the Romanists, in describing their papal bulls; and in the short by the whole body of ancient civilians and canonists, among whom this method of citation generally prevailed, not only with regard to chapters, but inferior sections also; in imitation of all which we still call some of the old statutes by their initial words, as the statute of *Quia emptores*, and that of *Circumspectè agatis*. But the most usual method of citing them, especially since the time of Edward II. is by naming the year of the king's reign in which the statute was made, together with the chapter or particular act, according to its numeral order; as 9 Geo. II. c. 4. For all the acts of one session

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general or *special*, public or private. A general or public act is an universal rule that regards the whole community: and of this the courts of law are bound to take notice judicially and *ex officio*, without the statute being particularly pleaded, or formally set forth, by the party who claims an advantage under it. Special or private acts are rather exceptions than rules, being those which only operate upon particular persons and private concerns; such as the Romans entitled *senatus decreta*, in contradistinction to the *senatus consulta*, which regarded the whole community; and of these the judges are not bound to take notice, unless they be formally shown and pleaded. Thus, to show the distinction, the statute 13 Eliz. c. 10. to prevent spiritual persons from making leases for longer terms than 21 years or three lives, is a public act; it being a rule prescribed to the whole body of spiritual persons in the nation: but an act to enable the bishop of Chester to make a lease to A. B. for 60 years, is an exception to this rule; it concerns only the parties and the bishop's successors, and is therefore a private act.

Statutes also are either *declaratory* of the common law, or *remedial* of some defects therein. Declaratory, where the old custom of the kingdom is almost fallen into disuse, or become disputable; in which case the parliament has thought proper, *in perpetuum rei testimonium*, and for avoiding all doubts and difficulties, to declare what the common law is and ever hath been. Thus the statute of treasons, 25 Edw. III. cap. 2. doth not make any new species of treasons: but only, for the benefit of the subject, declares and enumerates those several kinds of offence, which before were treason at the common law. Remedial statutes are those which are made to supply such defects, and abridge such superfluities, in the common law, as arise either from the general imperfection of all human laws, from change of time and circumstances, from the mistakes and unadvised determinations of unlearned judges, or from any other cause whatsoever. And this being done, either by enlarging the common law where it was too narrow and circumscribed, or by restraining it where it was too lax and luxuriant, hath occasioned another subordinate division of remedial acts of parliament into *enlarging* and *restraining* statutes. To instance again in the case of treason. Clipping the current coin of the kingdom was an offence not sufficiently guarded against by the common law: therefore it was thought expedient by statute 5 Eliz. c. 11. to make it high treason, which it was not at the common law: so that this was an *enlarging* statute. At common law, also, spiritual corporations might lease out their estates for any term of years, till prevented by the statute 13 Eliz. before mentioned: this was therefore a *restraining* statute.

43 Construction of statutes.

Secondly, the rules to be observed with regard to the construction of statutes are principally these which follow.

1. There are three points to be considered in the construction of all remedial statutes; the old law, the mischief and the remedy; that is, how the common law stood at the making of the act; what the mischief was, for which the common law did not provide; and what remedy the parliament hath provided to cure this mischief. And it is the business of the judges so to construe the act, as to suppress the mischief and advance the remedy. Let us instance again in the same restraining statute of 13 Eliz. c. 10. By the common law, ecclesiastical corporations might let as long leases as they thought proper: the mischief was, that they let long and unreasonable leases, to the impoverishment of their successors: the remedy applied by the statute was by making void all leases by ecclesiastical bodies for longer terms than three lives or 21 years. Now in the construction of this statute it is held, that leases, though for a longer term, if made by a bishop, are not void during the bishop's continuance in his see; or, if made by a dean and chapter, they are not void during the continuance of the dean; for the act was made for the benefit and protection of the successor. The mischief is therefore sufficiently suppressed by vacating them after the determination of the interest of the granters; but the leases, during their continuance, being not within the mischief, are not within the remedy.

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2. A statute, which treats of things or persons of an inferior rank, cannot by any *general words* be extended to those of a superior. So a statute, treating of "deans, prebendaries, parsons, vicars, *and others having spiritual promotion*," is held not to extend to bishops, though they have spiritual promotion; deans being the highest persons named, and bishops being of a still higher order.

3. Penal statutes must be construed strictly. Thus the statute 1 Edw. IV. c. 12. having enacted that those who are convicted of stealing *horses* should not have the benefit of clergy, the judges conceived that this did not extend to him who should steal but one *horse*, and therefore procured a new act for that purpose in the following year. And, to come nearer to our own times, by the statute 14 Geo. II. c. 6. stealing sheep *or other cattle*, was made felony without benefit of clergy. But these general words, "or other cattle," being looked upon as much too loose to create a capital offence, the act was held to extend to nothing but mere sheep. And therefore, in the next sessions, it was found necessary to make another statute, 15 Geo. II. c. 34. extending the former to bulls, cows, oxen, steers, bullocks, heifers, calves, and lambs, by name.

4. Statutes against frauds are to be liberally and beneficially expounded. This may seem a contradiction to the last rule: most statutes against frauds being in their consequences penal. But this difference is here to be taken: where the statute acts upon the offender, and inflicts a penalty, as the pillory or a fine, it is then to be taken strictly; but when the statute acts upon the offence, by setting aside the fraudulent transaction, here

session of parliament taken together made properly but one statute: and therefore, when two sessions have been held in one year, we usually mention stat. 1. or 2. Thus the bill of rights is cited, as 1 W. & M. st. 2. c. 2. signifying that it is the second chapter or act of the second statute, or the laws made in the second sessions of parliament held in the first year of King William and Queen Mary.

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here it is to be construed liberally. Upon this footing the statute of 13 Eliz. c. 5. which voids all gifts of goods, &c. made to defraud creditors *and others*, was held to extend by the general words to a gift made to defraud the queen of a forfeiture.

5. One part of a statute must be so construed by another, that the whole may (if possible) stand: *ut res magis valeat quam pereat.* As if land be vested in the king and his heirs by act of parliament, saving the right of A; and A has at that time a lease of it for three years; here A shall hold it for his term of three years, and afterwards it shall go to the king. For this interpretation furnishes matter for every clause of the statute to work and operate upon. But,

6. A saving, totally repugnant to the body of the act, is void. If therefore an act of parliament vests land in the king and his heirs, saving the right of all persons whatsoever; or vests the land of A in the king, saving the right of A: in either of these cases the saving is totally repugnant to the body of the statute, and (if good) would render the statute of no effect or operation; and therefore the saving is void, and the land vests absolutely in the king.

7. Where the common law and a statute differ, the common law gives place to the statute; and an old statute gives place to a new one. And this upon the general principle laid down in the last section, that *leges posteriores priores contrarias abrogant.* But this is to be understood only when the latter statute is couched in negative terms, or by its matter necessarily implies a negative. As if a former act says, that a juror upon such a trial shall have twenty pounds a-year, and a new statute comes and says he shall have twenty merks; here the latter statute, though it does not express, yet necessarily implies, a negative, and virtually repeals the former. For if twenty merks be made qualification sufficient, the former statute which requires twenty pounds is at an end. But if both the acts be merely affirmative, and the substance such that both may stand together, here the latter does not repeal the former, but they shall both have a concurrent efficacy. If by a former law an offence be indictable at the quarter sessions, and a latter law makes the same offence indictable at the assizes; here the jurisdiction of the sessions is not taken away, but both have a concurrent jurisdiction, and the offender may be prosecuted at either: unless the new statute subjoins express negative words; as, that the offence shall be indictable at the assizes, *and not elsewhere.*

8. If a statute, that repeals another, is itself repealed afterwards, the first statute is hereby revived, without any formal words for that purpose. So when the statutes of 26 and 35 Henry VIII. declaring the king to be the supreme head of the church, were repealed by a statute 1 and 2 Philip and Mary, and this latter statute was afterwards repealed by an act of 1 Eliz. there needed not any express word of revival in Queen Elizabeth's statute, but these acts of King Henry were impliedly and virtually revived.

9. Acts of parliament derogatory from the power of subsequent parliaments bind not. So the statute 11 Hen. VIII. c. 1. which directs, that no person for assisting a king *de facto* shall be attainted of treason by act of parliament or otherwise, is held to be good only as to common prosecutions for high treason; but will not restrain or clog any parliamentary attainder. Because the legislator, being in truth the sovereign power, is always of equal, always of absolute authority: it acknowledges no superior upon earth, which the prior legislature must have been if its ordinances could bind the present parliament. And upon the same principle Cicero, in his letters to Atticus, treats with a proper contempt these restraining clauses, which endeavour to tie up the hand of succeeding legislatures. "When you repeal the law itself (says he), you at the same time repeal the prohibitory clause which guards against such repeal."

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10. Lastly, Acts of parliament that are impossible to be performed are of no validity; and if there arise out of them collaterally any absurd consequences, manifestly contradictory to common reason, they are with regard to those collateral consequences void. We lay down the rule with these restrictions; though we know it is generally laid down more largely, that acts of parliament contrary to reason are void. But if the parliament will positively enact a thing to be done which is unreasonable, we know of no power that can controul it: and the examples usually alleged in support of this sense of the rule do none of them prove that where the main object of a statute is unreasonable, the judges are at liberty to reject it; for that were to set the judicial power above that of the legislature, which would be subversive of all government. But where some collateral matter arises out of the general words, and happens to be unreasonable; there the judges are in decency to conclude that this consequence was not foreseen by the parliament, and therefore they are at liberty to expound the statute by equity, and only *quoad hoc* disregard it. Thus if an act of parliament gives a man power to try all causes that arise within his manor of Dale; yet, if a cause should arise in which he himself is party, the act is construed not to extend to that, because it is unreasonable that any man should determine his own quarrel. But, if we could conceive it possible for the parliament to enact, that he should try as well his own causes as those of other persons, there is no court that has power to defeat the intent of the legislature, when couched in such evident and express words as leave no doubt whether it was the intent of the legislature or not.

These are the several grounds of the laws of England: over and above which, equity is also frequently called in to assist, to moderate, and to explain them. What equity is, and how impossible in its very essence to be reduced to stated rules, hath been shown above. It may be sufficient therefore, to add in this place, that, besides the liberality of sentiment with which our common law judges interpret acts of parliament, and such rules of the unwritten law as are not of a positive kind, there are also courts of equity established for the benefit of the subject, to detect latent frauds and concealments, which the process of the courts of law is not adapted to reach; to enforce the execution of such matters of trust and confidence, as are binding in conscience, though not cognizable in a court of law; to deliver from such dangers as are owing to misfortune or oversight; and to give a more specific relief, and more adapted to the circumstances of the case, than can always be obtained by the generality of the rules of the positive or common law. This is the business of

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of the courts of equity, which however are only conversant in matters of property. For the freedom of our constitution will not permit, that in criminal cases a power should be lodged in any judge to construe the law otherwise than according to the letter. This caution, while it admirably protects the public liberty, can never bear hard upon individuals. A man cannot suffer *more* punishment than the law assigns, but he may suffer *less*. The laws cannot be strained by partiality to inflict a penalty beyond what the letter will warrant; but, in cases where the letter induces any apparent hardship, the crown has the power to pardon.

The objects of the laws of England are, 1. The rights of persons. 2. The rights of things. 2. Private wrongs. 4. Public wrongs.

Chap. I. *Of the* Rights *of* Persons.

Sect. I. *Of the Absolute Rights of Individuals.*

xliv. (1.) The objects of the *Laws* of England are, 1. *Rights*, 2. *Wrongs*.

(2.) *Rights* are the rights of *persons*, or the rights of *things*.

(3.) The rights of *persons* are such as concern, and are annexed to, the persons of men: and, when the person *to* whom they are due is regarded, they are called (simply) *rights;* but, when we consider the person *from* whom they are due, they are then denominated *duties*.

(4.) *Persons* are either *natural*, that is, such as they are formed by nature; or *artificial*, that is, created by human policy, as bodies politic or *corporations*.

(5.) The rights of *natural* persons are, 1. *Absolute*, or such as belong to individuals. 2. *Relative*, or such as regard members of society.

(6.) The *absolute rights of individuals* regarded by the municipal laws (which pay no attention to *duties*, of the absolute kind), compose what is called political or civil *liberty*.

(7.) Political or civil *liberty* is the natural liberty of mankind, so far restrained by human laws, as is necessary for the good of society.

(8.) The absolute rights or civil liberties of Englishmen, as frequently declared in parliament, are principally three; the right of *personal security*, of *personal liberty*, and of *private property*.

(9.) The right of *personal security* consists in the legal enjoyment of life, limb, body, health, and reputation.

(10.) The right of *personal liberty* consists in the free power of loco-motion, without illegal restraint or banishment.

(11.) The right of *private property* consists in every man's free use and disposal of his own lawful acquisitions, without injury or illegal diminution.

(12.) Besides these three *primary* rights, there are others which are *secondary* and subordinate; viz. (to preserve the former from unlawful attacks). 1. The constitution and power of parliaments; 2. The limitation of the king's prerogative;—and (to vindicate them when actually violated; 3. The regular administration of public justice; 4. The right of petitioning for redress of grievances; 5. The right of having and using arms for self-defence.

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Sect. II. *Of the Parliament.*

xlv. (1.) The *relations* of persons are, 1. *Public;* 2. *Private*. The *public* relations are those of *magistrates* and *people*. *Magistrates* are *superior* or *subordinate*. And of *supreme* magistrates, in England, the *parliament* is the supreme *legislative*, the *king* the supreme *executive*.

(2.) *Parliaments*, in some shape, are of as high antiquity as the Saxon government in this island; and have subsisted, in their present form, at least five hundred years.

(3.) The parliament is assembled by the king's writs, and its sitting must not be intermitted above three years.

(4.) Its constituent parts are the king's majesty, the lords spiritual and temporal, and the commons represented by their members: each of which parts has a negative, or necessary, voice in making laws.

(5.) With regard to the *general* law of parliament; its power is absolute: each house is the judge of its own privileges; and all the members of either house are entitled to the privilege of speech, of person, of their domestics, and of their lands and goods.

(6.) The *peculiar* privileges of the lords (besides their judicial capacity), are, to hunt in the king's forests; to be attended by the sages of the law; to make proxies; to enter protests; and to regulate the election of the 16 peers of North Britain.

(7.) The *peculiar* privileges of the commons are, to frame taxes for the subject; and to determine the merits of their own elections, with regard to the qualifications of the electors and elected, and the proceedings at elections themselves.

(8.) Bills are usually twice read in each house, committed, engrossed, and then read a third time; and when they have obtained the concurrence of both houses, and received the royal assent, they become *acts* of parliament.

(9.) The houses may adjourn themselves; but the king only can prorogue the parliament.

(10.) Parliaments are dissolved, 1. At the king's will. 2. By the demise of the crown, that is, within six months after. 3. By length of time, or having sat for the space of seven years.

Sect. III. *Of the King and his Title.*

xlvi. (1.) The supreme *executive* power of this kingdom is lodged in a single person; the king or queen.

(2.) This royal person may be considered with regard to, 1. His title. 2. His royal family. 3. His councils. 4. His duties. 5. His prerogative. 6. His revenue.

(3.) With regard to his *title;* the crown of England, by the positive constitution of the kingdom, hath ever been descendible, and so continues.

(4.) The crown is descendible in a course peculiar to itself.

(5.) This course of descent is subject to limitation by parliament.

(6.) Notwithstanding such limitations, the crown retains

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retains its descendible quality, and becomes hereditary in the prince to whom it is limited.

(7.) King Egbert, King Canute, and King William I. have been successively constituted the common stocks, or ancestors, of this descent.

(8.) At the Revolution the convention of estates, or representative body of the nation, declared, that the misconduct of King James II. amounted to an abdication of the government, and that the throne was thereby *vacant*.

(9.) In consequence of this vacancy, and from a regard to the ancient line, the convention appointed the next Protestant heirs of the blood royal of King Charles I. to fill the vacant throne, in the old order of succession; with a temporary exception, or preference, to the person of King William III.

(10.) On the impending failure of the Protestant line of King Charles I. (whereby the throne might again have become vacant) the king and parliament extended the settlement of the crown to the Protestant line of King James I. viz. to the princess Sophia of Hanover, and the heirs of her body, being Protestants: And she is now the common stock, from whom the heirs of the crown must descend.

Sect. IV. *Of the King's Royal Family.*

xlvii. (1.) The king's royal *family* consists, first, of the *queen:* who is regnant, consort, or dowager.

(2.) The queen *consort* is a public person, and hath many personal prerogatives and distinct revenues.

(3.) The prince and princess of Wales, and the princess-royal, are peculiarly regarded by the law.

(4.) The other princes of the blood-royal are only entitled to precedence.

Sect. V. *Of the Councils belonging to the King.*

xlviii. (1.) The *king's councils* are, 1. The *parliament.* 2. The great council of *peers.* 3. The *judges*, for matters of law. 4. The *privy* council.

(2.) In *privy counsellors* may be considered, 1. Their creation. 2. Their qualifications. 3. Their duties. 4. Their powers. 5. Their privileges. 6. Their dissolution.

Sect. VI. *Of the King's Duties.*

xlix. (1.) The *king's duties*, are to govern his people according to law, to execute judgment in mercy, and to maintain the established religion. These are his part of the original contract between himself and the people; founded in the nature of society, and expressed in his oath at the coronation.

Sect. VII. *Of the King's Prerogative.*

l. (1.) Prerogative is that special power and pre-eminence which the king hath above other persons, and out of the ordinary course of law, in right of his regal dignity.

(2.) Such *prerogatives* are either *direct*, or *incidental.* The *incidental*, arising out of other matters, are considered as they arise: We now treat only of the *direct.*

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(3.) The *direct* prerogatives regard, 1. The *king's dignity*, or royal character; 2. His *authority*, or regal power: 3. His *revenue*, or royal income.

(4.) The *king's dignity* consists in the legal attributes of, 1. Personal sovereignty. 2. Absolute perfection. 3. Political perpetuity.

(5.) In the *king's authority*, or regal power, consists the executive part of government.

(6.) In *foreign* concerns; the *king*, as the representative of the nation, has the right or *prerogative*, 1. Of sending and receiving ambassadors. 2. Of making treaties. 3. Of proclaiming war or peace. 4. Of issuing reprisals. 5. Of granting safe conducts.

(7.) In *domestic* affairs; the *king* is, first, a constituent part of the supreme legislative power; hath a negative upon all new laws; and is bound by no statute, unless specially named therein.

(8.) He is also considered as the general of the kingdom, and may raise fleets and armies, build forts, appoint havens, erect beacons, prohibit the exportation of arms and ammunition, and confine his subjects within the realm, or recal them from foreign parts.

(9.) The *king* is also the fountain of justice, and general conservator of the peace; and therefore may erect courts (where he hath a legal ubiquity), prosecute offenders, pardon crimes, and issue proclamations.

(10.) He is likewise the fountain of honour, of office, and of privilege.

(11.) He is also the arbiter of *domestic* commerce; (not of *foreign*, which is regulated by the law of merchants); and is therefore entitled to the erection of public marts, the regulation of weights and measures, and the coinage or legitimation of money.

(12.) The *king* is, lastly, the supreme head of the church; and, as such, convenes, regulates, and dissolves synods, nominates bishops, and receives appeals in all ecclesiastical causes.

Sect. VIII. *Of the King's Revenue.*

li. (1.) The *king's revenue* is either *ordinary* or *extraordinary.* And the *ordinary* is, 1. *Ecclesiastical.* 2. *Temporal.*

(2.) The *king's ecclesiastical* revenue consists in, 1. The custody of the temporalities of vacant bishoprics. 2. Corodies and pensions. 3. Extra-parochial tithes. 4. The first fruits and tenths of benefices.

(3.) The *king's* ordinary *temporal* revenue consists in, 1. The demesne lands of the crown. 2. The hereditary excise; being part of the consideration for the purchase of his feodal profits, and the prerogatives of purveyance and pre-emption. 3. An annual sum issuing from the duty on wine licenses; being the residue of the same consideration. 4. His forests. 5. His courts of justice. 6. Royal fish. 7. Wrecks, and things jetsam, flotsam, and ligan. 8. Royal mines. 9. Treasure trove. 10. Waifs. 11. Estrays. 12. Forfeitures for offences, and deodands. 13. Escheats of lands. 14. Custody of ideots and lunatics.

(4.) The *king's extraordinary revenue*, consists in aids, subsidies, and supplies, granted him by the commons in parliament.

(5.) Heretofore these were usually raised by grants of the (nominal) *tenth* or *fifteenth* part of the moveables

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ables in every township; or by scutages, hydages, and talliages; which were succeeded by *subsidies* assessed upon individuals, with respect to their lands and goods.

(6.) A new system of taxation took place about the time of the Revolution: our modern taxes are therefore, 1. *Annual.* 2. *Perpetual.*

(7.) The *annual taxes* are, 1. The land tax, or the ancient subsidy raised upon a new assessment. 2. The malt tax, being an annual excise on malt, mum, cyder, and perry.

(8.) The *perpetual* taxes are, 1. The customs, or tonnage and poundage of all merchandise exported or imported. 2. The excise duty, or inland imposition on a great variety of commodities. 3. The salt duty, or excise on salt. 4. The post office, or duty for the carriage of letters. 5. The stamp duty on paper, parchment, &c. 6. The duty on houses and windows. 7. The duty on licenses for hackney coaches and chairs. 8. The duty on offices and pensions.

(9.) Part of this revenue is applied to pay the interest of the national debt, till the principal is discharged by parliament.

(10.) The produce of these several taxes were originally separate and *specific funds*, to answer *specific loans* upon their respective credits; but are now consolidated by parliament into three principal funds, the *aggregate*, *general*, and *South sea* funds, to answer *all* the debts of the nation: the public faith being also superadded to supply deficiencies, and strengthen the security of the whole.

(11.) The surplusses of these funds, after paying the interest of the national debt, are carried together, and denominated the *sinking* fund: which, unless otherwise appropriated by parliament, is annually to be applied towards paying off some part of the principal.

(12.) But, previous to this, the *aggregate* fund is now charged with an annual sum for the *civil list*; which is the immediate proper revenue of the crown, settled by parliament on the king at his accession, for defraying the charges of civil government.

Sect. IX. *Of Subordinate Magistrates.*

iii. (1.) Subordinate magistrates, of the most general use and authority, are, 1. *Sheriffs.* 2. *Coroners.* 3. *Justices* of the *Peace.* 4. *Constables.* 5. *Surveyors* of the *highways.* 6. *Overseers* of the *poor.*

(2.) The *sheriff* is the keeper of each county, annually nominated in due form by the king; and is (within his county) a judge, a conservator of the peace, a ministerial officer, and the king's bailiff.

(3.) *Coroners* are permanent officers of the crown in each county, elected by the freeholders; whose office it is to make inquiry concerning the death of the king's subjects, and certain revenues of the crown; and also, in particular cases, to supply the office of sheriff.

(4.) *Justices* of the *peace* are magistrates in each county, statutably qualified, and commissioned by the king's majesty: with authority to conserve the peace; to hear and determine felonies, and other misdemeanors; and to do many other acts committed to their charge by particular statutes.

(5.) *Constables* are officers of hundreds and townships, appointed at the leet, and empowered to preserve the peace, to keep watch and ward, and to apprehend offenders.

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(6.) *Surveyors* of the *highways* are officers appointed annually in every parish; to remove annoyances in, and to direct the reparation of the public roads.

(7.) *Overseers* of the *poor* are officers appointed annually in every parish; to relieve such impotent, and employ such sturdy poor, as are *settled* in each parish, —by birth,—by parentage,—by marriage,—or by 40 days residence; accompanied with, 1. Notice. 2. Renting a tenement of ten pounds annual value. 3. Paying their assessed taxations. 4. Serving an annual office. 5. Hiring and service for a year. 6. Apprenticeship for seven years. 7. Having a sufficient estate in the parish.

Sect. X. *Of the People, whether Aliens, Denizens, or Natives.*

liii. (1.) The *people* are either *aliens*, that is, born out of the dominions or allegiance of the crown of Great Britain; or *natives*, that is, born within it.

(2.) Allegiance is the duty of all subjects; being the reciprocal tie of the people to the prince, in return for the protection he affords them; and, in *natives*, this duty of allegiance is natural and perpetual: in *aliens*, is local and temporary only.

(3.) The rights of *natives* are also natural and perpetual: those of *aliens*, local and temporary only; unless they be made denizens by the king, or naturalized by parliament.

Sect. XI. *Of the Clergy.*

liv. (1.) The people, whether aliens, denizens, or natives, are also either *clergy*, that is, all persons in holy orders, or in ecclesiastical offices: or *laity*, which comprehends the rest of the nation.

(2.) The *clerical* part of the nation, thus defined, are, 1. Archbishops and bishops; who are elected by their several chapters at the nomination of the crown, and afterwards confirmed and consecrated by each other. 2. Deans and chapters. 3. Archdeacons. 4. Rural deans. 5. Parsons (under which are included appropriators) and vicars; to whom there are generally requisite, holy orders, presentation, institution and induction. 6. Curates. To which may be added, 7. Church wardens. 8. Parish clerks and sextons.

Sect. XII. *Of the Civil State.*

lv. (1.) The *laity* are divisible into three states; *civil*, *military*, and *maritime.*

(2.) The *civil* state (which includes all the nation, except the clergy, the army, and the navy, and many individuals among them also), may be divided into the *nobility* and the *commonalty.*

(3.) The *nobility* are dukes, marquises, earls, viscounts, and barons. These had anciently duties annexed to their respective honours: they are created either by writ, that is, by summons to parliament; or by the king's letters patent, that is, by royal grant: and they enjoy many privileges exclusive of their senatorial capacity.

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(4.) The *commonalty* consist of knights of the garter, knights bannerets, baronets, knights of the bath, knights bachelors, esquires, gentlemen, yeomen, tradesmen, artificers, and labourers.

Sect. XIII. *Of the Military and Maritime States.*

lvi. (1.) The *military* state, by the standing constitutional law, consists of the militia of each county, raised from among the people by lot, officered by the principal landholders, and commanded by the lord lieutenant.

(2.) The more disciplined occasional troops of the kingdom are kept on foot only from year to year by parliament; and, during that period, are governed by martial law, or arbitrary articles of war, formed at the pleasure of the crown.

(3.) The *maritime* state consists of the officers and mariners of the British navy; who are governed by express and permanent laws, or the articles of the navy, established by act of parliament.

Sect. XIV. *Of Master and Servants.*

lvii. (1.) The *private*, economical, *relations*, of persons are those of, 1. *Master* and *servants*. 2. *Husband* and *wife*. 3. *Parent* and *child*. 4. *Guardian* and *ward*.

(2.) The first relation may subsist between a *master* and four species of *servants*, (for slavery is unknown to our laws): viz. 1. Menial servants; who are *hired*. 2. Apprentices; who are *bound* by indentures. 3. Labourers; who are casually *employed*. 4. Stewards, bailiffs, and factors; who are rather in a *ministerial* state.

(3.) From this relation result divers powers to the master, and emoluments to the servant.

(4.) The master hath a property in the service of his servant; and must be answerable for such acts as the servant does by his express, or implied, command.

Sect. XV. *Of Husband and Wife.*

lviii. (1.) The second private relation is that of *marriage*; which includes the reciprocal rights and duties of *husband* and *wife*.

(2.) *Marriage* is duly contracted between persons, 1. Consenting. 2. Free from canonical impediments, which make it *voidable*. 3. Free also from the civil impediments,—of prior marriage,—of want of age—of non-consent of parents or guardians, where requisite, —and of want of reason; either of which make it totally *void*. And it must be celebrated by a clergyman in due form and place.

(3.) Marriage is dissolved, 1. By death. 2. By divorce in the spiritual court: not *à mensa et thoro* only, but *à vinculo matrimonii*, for canonical cause existing previous to the contract. 3. By act of parliament, as for adultery.

(4.) By marriage the husband and wife become one person in law; which unity is the principal foundation of their respective rights, duties, and disabilities.

Sect. XVI. *Of Parent and Child.*

lix. (1.) The third, and most universal private relation is that of *parent* and *child*.

(2.) *Children* are, 1. *Legitimate*; being those who are born in lawful wedlock, or within a competent time after. 2. *Bastards*, being those who are not so.

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(3.) The duties of parents to *legitimate* children are, 1. Maintenance. 2. Protection. 3. Education.

(4.) The power of parents consists principally in correction, and consent to marriage. Both may after death be delegated by will to a guardian; and the former also, living the parent, to a tutor or master.

(5.) The duties of *legitimate* children to parents are obedience, protection, and maintenance.

(6.) The duty of parents to *bastards* is only that of maintenance.

(7.) The rights of a *bastard* are such only as he can acquire; for he is incapable of inheriting any thing.

Sect. XVII. *Of Guardian and Ward.*

lx. (1.) The fourth private relation is that of *guardian* and *ward*, which is plainly derived from the last; these being, during the continuance of their relation, reciprocally subject to the same rights and duties.

(2.) *Guardians* are of divers sorts: 1. Guardians by nature, or the parents. 2. Guardians for nurture, assigned by the ecclesiastical courts. 3. Guardians in socage, assigned by the common law. 4. Guardians by statute, assigned by the father's will. All subject to the superintendance of the court of chancery.

(3.) *Full age* in male or female for all purposes is the age of 21 years (different ages being allowed for different purposes); till which age the person is an *infant*.

(4.) An *infant*, in respect of his tender years, hath various privileges, and various disabilities, in law; chiefly with regard to suits, crimes, estates and contracts.

Sect. XVIII. *Of Corporations.*

lxi. (1.) Bodies politic, or *corporations*, which are *artificial* persons, are established for preserving in perpetual succession certain rights; which, being conferred on *natural* persons only, would fail in process of time.

(2.) Corporations are, 1. *Aggregate*, consisting of many members. 2. *Sole*, consisting of one person only.

(3.) Corporations are also either *spiritual*, erected to perpetuate the rights of the church; or *lay*. And the lay are, 1. *Civil*; erected for many temporal purposes. 2. *Eleemosynary*; erected to perpetuate the charity of the founder.

(4). Corporations are usually erected and named by virtue of the king's royal charter; but may be created by act of parliament.

(5.) The powers incident to all corporations are, 1. To maintain perpetual succession. 2. To act in their corporate capacity like an individual. 3. To hold lands, subject to the statutes of mortmain. 4. To have a common seal. 5. To make by-laws. Which last power, in spiritual or eleemosynary corporations, may be executed by the king or the founder.

(6.) The duty of corporations is to answer the ends of their institution.

(7.) To enforce this duty, all corporations may be *visited*: spiritual corporations by the ordinary; lay corporations by the founder, or his representatives; viz. the

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the civil by the king (who is the *fundator incipiens* of all represented in his court of king's bench; the eleemosynary by the endower (who is the *fundator perficiens* of such), or by his heirs or assigns.

(8.) Corporations may be dissolved, 1. By act of parliament. 2. By the natural death of all their members. 3. By surrender of their franchises. 4. By forfeiture of their charter.

CHAP. II. *Of the* RIGHTS *of* THINGS.

lxii.

SECT. I. *Of Property in General.*

lxiii. (1.) ALL *dominion* over external objects has its original from the gift of the Creator to man in general.

(2.) The *substance* of things was, at first, common to all mankind; yet a temporary property in the *use* of them, might even then be acquired, and continued, by *occupancy*.

(3.) In process of time a permanent property was established in the *substance*, as well as the *use* of things; which was also originally acquired by *occupancy* only.

(4.) Lest this property should determine by the owner's dereliction or death, whereby the thing would again become common, societies have established *conveyances*, *wills*, and *heirships*, in order to continue the property of the first occupant: and, where by accident such property becomes discontinued or unknown, the thing usually results to the *sovereign* of the state, by virtue of the municipal law.

(5.) But of some things, which are incapable of permanent substantial dominion, there still subsists only the same transient usufructuary property, which originally subsisted in all things.

SECT. II. *Of Real Property; and, first, of Corporeal Hereditaments.*

lxiv. (1.) In this *property*, or exclusive dominion, consist the *rights* of *things;* which are, 1. Things *real*. 2 Things *personal*.

(2.) In things *real* may be considered, 1. Their several *kinds*. 2. The *tenures* by which they may be holden. 3. The *estates* which may be acquired therein. 4. Their *title*, or the means of acquiring and losing them.

(3.) All the several *kinds* of things real are reducible to one of these three, viz. *lands*, *tenements*, or *hereditaments;* whereof the second includes the first, and the third includes the first and second.

(4.) *Hereditaments*, therefore, or whatever may come to be inherited (being the most comprehensive denomination of things real), are either *corporeal* or *incorporeal*.

(5.) *Corporeal* hereditaments consist wholly of *lands*, in their largest legal sense; wherein they include not only the face of the earth, but every other object of sense adjoining thereto, and subsisting either above or beneath it.

SECT. III. *Of Incorporeal Hereditaments.*

lxv. (1.) Incorporeal hereditaments are rights issuing out of things corporeal, or concerning, or annexed to, or exercisable within the same.

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(2.) Incorporeal hereditaments are, 1. *Advowsons*. 2. *Tithes*. 3. *Commons*. 4. *Ways*. 5. *Offices*. 6. *Dignities*. 7. *Franchises*. 8. *Corodies* or *pensions*. 9. *Annuities*. 10. *Rents*.

(3.) An *advowson* is a right of representation to an ecclesiastical benefice; either appendant, or in gross. This may be, 1. Presentative. 2. Collative. 3. Donative.

(4.) *Tithes* are the tenth part of the increase yearly arising from the profits and stock of lands, and the personal industry of mankind. These, by the ancient and positive law of the land, are due of common right to the parson, or (by endowment) to the vicar; unless specially discharged, 1. By real composition. 2. By prescription, either *de modo decimandi*, or *de non decimando*.

(5.) *Common* is a profit which a man hath in the land of another; being, 1. Common of pasture, which is either appendant, appurtenant, because of vicinage, or in gross. 2. Common of piscary. 3. Common of turbary. 4. Common of estovers, or botes.

(6.) *Ways* are a right of passing over another man's ground.

(7.) *Offices* are the right to exercise a public or private employment.

(8.) For *dignities*, which are titles of honour, see chap. i. sect. 12.

(9.) *Franchises* are a royal privilege, or branch of the king's prerogative, subsisting in the hands of a subject.

(10.) *Corodies* are allotments for one's sustenance; which may be converted into *pensions*, see chap. i. sect. 8.

(11.) An *annuity* is a yearly sum of money, charged upon the person, and not upon the lands of the granter.

(12.) *Rents* are a certain profit issuing yearly out of lands and tenements; and are reducible to, 1. Rent-service. 2. Rent-charge. 3. Rent-seck.

SECT. IV. *Of the Feodal System.*

lxvi. (1.) The doctrine of *tenures* is derived from the *feodal* law; which was planted in Europe by its northern conquerors at the dissolution of the Roman empire.

(2.) Pure and *proper feuds* were parcels of land allotted by a chief to his followers, to be held on the conditiou of personally rendering due military service to their lord.

(3.) These were granted by investiture; were held under the bond of fealty; were inheritable only by descendants; and could not be transferred without the mutual consent of the lord and vassal.

(4.) *Improper feuds* were derived from the other; but differed from them in their original, their services and renders, their descent, and other circumstances.

(5.) The lands of England were converted into *feuds*, of the improper kind, soon after the Norman conquest; which gave rise to the grand maxim of tenure, viz. That all lands in the kingdom are *holden*, mediately or immediately, of the king.

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Sect. V. *Of the Ancient English Tenures.*

(1.) The distinction of tenures consisted in the nature of their services: as, 1. *Chivalry*, or *knight-service;* where the service was free, but uncertain. 2. *Free socage;* where the service was free, and certain. 3. Pure *villenage;* where the service was base, and uncertain. 4. *Privileged villenage*, or *villein socage;* where the service was base, but certain.

(2.) The most universal ancient tenure was that in *chivalry*, or by *knight-service;* in which the tenant of every knight's fee was bound, if called upon, to attend his lord to the wars. This was granted by livery, and perfected by homage and fealty; which usually drew after them suit of court.

(3.) The other fruits and consequences of the tenure by knight-service were, 1. Aid. 2. Relief. 3. Primer seisin. 4. Wardship. 5. Marriage. 6. Fines upon alienation. 7. Escheat.

(4.) *Grand serjeanty* differed from chivalry principally in its render, or service; and not in its fruits and consequences.

(5.) The personal service in chivalry was at length gradually changed into pecuniary assessments, which were called *scutage* by *escuage*.

(6.) These military tenures (except the services of grand serjeanty) were, at the restoration of King Charles, totally abolished, and reduced to free socage by act of parliament.

Sect. VI. *Of the Modern English Tenures.*

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(1.) Free *socage* is a tenure by any free, certain, and determinate service.

(2.) This tenure, the relick of Saxon liberty, includes *petit serjeanty*, tenure in *burgage*, and *gavelkind*.

(3.) Free socage lands partake strongly of the feodal nature, as well as those in chivalry: being holden; subject to some service, at the least to fealty and suit of court; subject to relief, to wardship, and to escheat, but not to marriage; subject also formerly to aids, primer seisin, and fines for alienation.

(4.) *Pure villenage* was a precarious and slavish tenure, at the absolute will of the lord, upon uncertain services of the basest nature.

(5.) From hence, by tacit consent or encroachment, have arisen the modern *copyholds*, or tenure by copy of court-roll: in which lands may be still held at the (nominal) will of the lord, (but regulated) according to the custom of the manor,

(6.) These are subject, like socage lands, to services, relief, and escheat; and also to heriots, wardship, and fines upon descent and alienation.

(7.) *Privileged villenage*, or *villein socage*, is an exalted species of copyhold tenure, upon base, but certain, services; subsisting only in the ancient demesnes of the crown; whence the tenure is denominated the tenure in *ancient demesne*.

(8.) These copyholds of ancient demesne have divers immunities annexed to their tenure; but are still held by copy of court-roll, according to the custom of the manor, though not at the will of the lord.

(9.) *Frankalmoign* is a tenure by spiritual services at large, whereby many ecclesiastical and eleemosynary corporations now hold their lands and tenements; being of a nature distinct from tenure by divine service in certain.

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Sect. VII. *Of Freehold Estates of Inheritance.*

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(1.) Estates in lands, tenements, and hereditaments, are such interest as the tenant hath therein; to ascertain which, may be considered, 1. The *quantity* of *interest*. 2. The *time* of *enjoyment*. 3. The *number* and *connexions* of the *tenants*.

(2.) Estates, with respect to their *quantity* of *interest*, or duration, are either *freehold*, or *less* than *freehold*.

(3). A *freehold* estate, in lands, is such as is created by livery of seisin at common law; or, in tenements of an incorporeal nature, by what is equivalent thereto.

(4.) Freehold estates are either estates of *inheritance* or *not* of *inheritance*, viz. for *life* only: and *inheritances* are, 1. *Absolute*, or *fee-simple*. 2. *Limited fees*.

(5.) Tenant in *fee-simple* is he that hath lands, tenements, or hereditaments, to hold to him and his heirs for ever.

(6.) *Limited fees* are, 1. *Qualified*, or *base*, fees. 2. Fees *conditional* at the common law.

(7.) *Qualified* or *base* fees are those which, having a qualification subjoined thereto, are liable to be defeated when that qualification is at an end.

(8.) *Conditional* fees, at the common law, were such as were granted to the donee, and the heirs of his body, in exclusion of collateral heirs.

(9.) These were held to be fees, granted on condition that the donee had issue of his body; which condition being once performed by the birth of issue, the donee might immediately alien the land: but the statute *de donis* being made to prevent such alteration, thereupon from the division of the fee (by construction of this statute into a particular estate and a reversion), the conditional fees began to be called *fees tail*.

(10.) All tenements real, or savouring of the realty, are subject to entails.

(11.) Estates tail may be, 1. General, or special; 2. Male, or female; 3. Given in frank marriage.

(12.) Incident to estates tail are, 1. Waste. 2. Dower. 3. Curtesy. 4. Bar;—by fine, recovery, or lineal warranty with assets.

(13.) Estates tail are now, by many statutes and resolutions of the courts, almost brought back to the state of conditional fees at the common law.

Sect. VIII. *Of Freeholds, not of Inheritance.*

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(1.) Freeholds, *not* of *inheritance*, or for *life* only, are, 1. *Conventional*, or created by the act of the parties. 2. *Legal*, or created by operation of law.

(2.) *Conventional* estates for *life* are created by an express grant for term of one's own life, or *pur auter vie;* or by a general grant, without expressing any term at all.

(3.) Incident to this, and all other estates for life, are

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are estovers, and emblements: and to estates *pur auter vie* general occupancy was also incident; as special occupancy still is, if *cestuy que vie* survives the tenant.

(4.) *Legal* estates for *life* are, 1. Tenancy in *tail*, after *possibility* of issue *extinct*. 2. Tenancy by the *curtesy* of England. 3. Tenancy in *dower*.

(5.) Tenancy in *tail*, after *possibility* of issue *extinct*, is where an estate is given in special tail; and, before issue had, a person dies from whose body the issue was to spring; whereupon the tenant (if surviving) becomes tenant in *tail*, after *possibility* of issue *extinct*.

(6.) This estate partakes both of the incidents to an estate tail, and those of an estate for life.

(7.) Tenancy by the *curtesy* of England is where a man's wife is seized of an estate of inheritance; and he by her has issue, born alive, which was capable of inheriting her estate; in which case he shall, upon her death, hold the tenements for his own life, as tenant by the *curtesy*.

(8.) Tenancy in *dower* is where a woman's husband is seized of an estate of inheritance, of which her issue might by any possibility have been heir; and the husband dies: the woman is thereupon entitled to *dower*, or one-third part of the lands and tenements, to hold for her natural life.

(9.) Dower is either by the common law; by special custom; *ad ostium ecclesiæ;* or, *ex assensu patris*.

(10.) Dower may be forfeited or barred, particularly by an estate in *jointure*.

Sect. IX. *Of Estates less than Freehold.*

lxxi. (1.) Estates *less* than *freehold* are, 1. Estates for *years*. 2. Estates at *will*. 3. Estates at *sufferance*.

(2.) An estate for *years* is where a man, seized of lands and tenements, letteth them to another for a certain period of time, which transfers the interest of the term; and the lessee enters thereon, which gives him possession of the term, but not legal seisin of the land.

(3.) Incident to this estate are estovers; and also emblements, if it determines before the full end of the term.

(4.) An estate at *will* is where lands are let by one man to another, to hold at the will of both parties; and the lessee enters thereon.

(5.) *Copyholds* are estates held at the will of the lord, (regulated) according to the custom of the manor.

(6.) An estate at *sufferance* is where one comes into possession of land by lawful title, but keeps it afterwards without any title at all.

Sect. X. *Of Estates upon Condition.*

lxvi. (1.) Estates (whether freehold or otherwise) may also be held upon *condition;* in which case their existence depends on the happening, or not happening, of some uncertain event.

(2.) These estates are, 1. On condition *implied*. 2. On condition *expressed*. 3. Estates in *gage*. 4. Estates by *statute*, merchant or staple. 5. Estates by *elegit*.

(3.) Estates on condition *implied* are where a grant of an estate has, from its essence and constitution, a condition inseparably annexed to it; though none be expressed in words.

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(4.) Estates on condition *expressed* are where an express qualification or provision is annexed to the grant of an estate.

(5.) On the performance of these conditions either expressed or implied (if *precedent*) the estate may be vested or enlarged; or, on the breach of them (if *subsequent*) an estate already vested may be defeated.

(6.) Estates in *gage*, *in vadio*, or in pledge, are estates granted as a security for money lent; being, 1. *In vivo vadio*, or *living gage;* where the profits of land are granted till a debt be paid, upon which payment the granter's estate will revive. 2. *In mortuo vadio*, in *dead*, or *mort gage;* wherein an estate is granted, on condition to be void at a day certain, if the granter then repays the money borrowed; on failure of which, the estate becomes absolutely dead to the granter.

(7.) Estates by *statute*-merchant, or *statute*-staple, are also estates conveyed to creditors, in pursuance of certain statutes, till their profits shall discharge the debt.

(8.) Estates by *elegit* are where, in consequence of a judicial writ so called, lands are delivered by the sheriff to a plaintiff, till their profits shall satisfy a debt adjudged to be due by law.

Sect. XI. *Of Estates in Possession, Remainder, and Reversion.*

lxxiii. (1.) Estates, with respect to their *time* of *enjoyment*, are either in immediate *possession*, or in *expectancy;* which estates in *expectancy* are created at the same time, and are parcel of the same estates, as those upon which they are expectant. These are, 1. *Remainders*. 2. *Reversions*.

(2.) A *remainder* is an estate limited to take effect, and be enjoyed, after another *particular* estate is determined.

(3.) Therefore, 1. There must be a precedent particular estate, in order to support a remainder. 2. The remainder must pass out of the granter, at the creation of the particular estate. 3. The remainder must vest in the grantee, during the continuance, or at the determination, of the particular estate.

(4.) Remainders are, 1. Vested; where the estate is fixed to remain to a *certain* person, after the particular estate is spent. 2. Contingent; where the estate is limited to take effect, either to an *uncertain* person, or upon an *uncertain* event.

(5.) An *executory devise* is such a disposition of lands, by will, that an estate shall not vest thereby at the death of the devisor, but only upon some future contingency, and without any precedent particular estate to support it.

(6.) A *reversion* is the residue of an estate left in the granter, to commence in possession after the determination of some *particular* estate granted: to which are incident fealty, and rent.

(7.) Where two estates, the one less, the other greater, the one in possession, the other in expectancy, meet together in one and the same person, and in one and the same right, the less is *merged* in the greater.

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Sect. XII. *Of Estates, in Severalty, Joint Tenancy, Coparcenary, and Common.*

lxxiv. (1.) Estates, with respect to the *number* and *connexions* of their *tenants*, may be held, 1. In *severalty*. 2. In *joint tenancy*. 3. In *coparcenary*. 4. In *common*.

(2.) An estate in *severalty* is where one tenant holds it in his own sole right, without any other person being joined with him.

(3.) An estate in *joint tenancy* is where an estate is granted to two or more persons; in which case the law construes them to be *joint tenants*, unless the words of the grant expressly exclude such construction.

(4.) Joint tenants have an unity of interest, of title, of time and of possession: they are seised *per my et per tout*: and therefore upon the decease of one joint tenant, the whole interest remains to the survivor.

(5.) Joint tenancy may he dissolved, by destroying one of its four constituent unities.

(6.) An estate in *coparcenary* is where an estate of inheritance descends from the ancestor to two or more persons; who are called *parceners*, and all together make but one heir.

(7.) Parceners have an unity of interest, title, and possession; but are only seised *per my*, and not *per tout*: wherefore there is no survivorship among parceners.

(8.) Incident to this estate is the law of *hotchpot*.

(9.) Coparcenary may also be dissolved, by destroying any of its three constituent unities.

(10.) An estate in *common* is where two or more persons hold lands, possibly by distinct titles, and for distinct interests; but by unity of possession, because none knoweth his own severalty.

(11.) Tenants in common have therefore an unity of possession, (without survivorship; being seised *per my*, and not *per tout*); but no necessary unity of title, time, or interest.

(12.) This estate may be created, 1. By dissolving the constituent unities of the two former; 2. By express limitation in a grant: and may he destroyed, 1. By uniting the several titles in one tenant; 2. By partition of the land.

Sect. XIII. *Of the Title to Things Real, in General.*

lxxv. (1.) A *title* to things real is the means whereby a man cometh to the just possession of his property.

(2.) Herein may be considered, 1. A mere or naked possession. 2. The right of possession; which is, 1*st*, an apparent, 2*dly*, an actual right. 3. The mere right of property. 4. The conjunction of actual possession with both these rights; which constitutes a perfect *title*.

Sect. XIV. *Of Title by Descent.*

lxxvi. (1.) The *title* to things real may be reciprocally acquired or lost, 1. By *descent*. 2. By *purchase*.

(2.) *Descent* is the means whereby a man, on the death of his ancestor, acquires a title to the estate, in right of his representation, as his *heir* at law.

(3.) To understand the doctrine of descents, we must form a clear notion of *consanguinity*; which is the connexion, or relation, of persons descended from the same stock or common ancestor; and it is, 1. *Lineal*, where one of the kinsmen is lineally descended from the other. 2. *Collateral*, where they are lineally descended, not one from the other, but both from the same common ancestor.

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(4.) The rules of descent, or *canons* of *inheritance*, observed by the laws of England, are these:

1*st*, Inheritances shall lineally *descend* to the *issue* of the person last actually seised, *in infinitum*; but shall never lineally *ascend*.

2*d*, The *male* issue shall be admitted before the *female*.

3*d*, Where there are two or more males in equal degree, the *eldest* only shall inherit; but the females *all* together.

4*th*, The lineal descendants, *in infinitum*, of any person deceased shall *represent* their ancestor; that is, shall stand in the same place as the person himself would have done, had he been living.

5*th*, On failure of *lineal* descendants, or issue, of the person last seised, the inheritance shall descend to the blood of the *first purchaser*; subject to the three preceding rules. To evidence which blood, the two following rules are established.

6*th*, The collateral heir of the person last seised must be his next collateral kinsman, of the *whole* blood.

7*th*, In collateral inheritances, the *male stocks* shall be preferred to the *female*; that is, kindred derived from the blood of the male ancestors shall be admitted before those from the blood of the female: unless where the lands have, in fact, descended from a female.

Sect. XV. *Of Title by Purchase, and first by Escheat.*

lxxvii. (1.) Purchase, or perquisition, is the possession of an estate which a man hath by his own act or agreement; and not by the mere act of law, or descent from any of his ancestors. This includes, 1. *Escheat*. 2. *Occupancy*. 3. *Prescription*. 4. *Forfeiture*. 5. *Alienation*.

(2.) *Escheat* is where, upon deficiency of the tenant's *inheritable blood*, the estate falls to the lord of the fee.

(3.) *Inheritable blood* is wanting to, 1. Such as are not related to the person last seised. 2. His maternal relations in paternal inheritances, and *vice versa*. 3. His kindred of the half blood. 4. Monsters. 5. Bastards. 6. Aliens, and their issue. 7. Persons attainted of treason or felony. 8. Papists, in respect of themselves only, by the statute law.

Sect. XVI. *Of Title by Occupancy.*

lxxviii. (1.) Occupancy is the taking possession of those things which before had no owner.

(2.) Thus, at the common law, where tenant *pur auter vie* died during the life of *cestuy que vie*, he, who could first enter, might lawfully retain the possession; unless by the original grant the heir was made a *special* occupant.

(3.) The law of *derelictions* and *alluvions* has narrowed the title of occupancy.

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Sect. XVII. *Of Title by Prescription.*

lxxix. (1.) Prescription (as distinguished from *custom*) is a *personal* immemorial usage of enjoying a right in some incorporeal hereditament, by a man, and either his ancestors or those whose estate of inheritance he hath: of which the first is called *prescribing in his ancestors*, the latter in a *que estate*.

Sect. XVIII. *Of Title by Forfeiture.*

lxxx. (1.) Forfeiture is a punishment annexed by law to some illegal act, or negligence, in the owner of things real; whereby the estate is transferred to another, who is usually the party injured.

(2.) Forfeitures are occasioned, 1. By *crimes*. 2. By *alienation*, contrary to law. 3. By *lapse*. 4. By *simony*. 5. By *nonperformance* of *conditions*. 6. By *waste*. 7. By *breach* of *copyhold customs*. 8. By *bankruptcy*.

(3.) Forfeitures for *crimes*, or misdemeanors, are for, 1. Treason. 2. Felony. 3. Misprision of treason. 4. *Præmunire*. 5. Assaults on a judge, and batteries, sitting the courts. 6. Popish recusancy, &c.

(4.) *Alienations*, or conveyances, which indnce a forfeiture, are, 1. Those in mortmain, made to corporations contrary to the statute law. 2. Those made to aliens. 3. Those made by particular tenants, when larger than their estates will warrant.

(5.) *Lapse* is a forfeiture of the right of presentation to a vacant church, by neglect of the patron to present within six kalendar months.

(6.) *Simony* is the corrupt presentation of any one to an ecclesiastical benefice, whereby that turn becomes forfeited to the crown.

(7.) For forfeiture by *nonperformance* of *conditions*, see Sect. 10.

(8.) *Waste* is a spoil, or destruction, in any corporeal hereditaments, to the prejudice of him that hath the inheritance.

(9.) *Copyhold* estates may have also other peculiar causes of forfeiture, according to the custom of the manor.

(10.) *Bankruptcy* is the act of becoming a *bankrupt*; that is, a trader who secretes himself, or does certain other acts tending to defraud his creditors, see Sect. 22.

(11.) By bankruptcy all the estates of the bankrupt are transferred to the assignees of his commissioners, to be sold for the benefit of his creditors.

Sect. XIX. *Of Title by Alienation.*

lxxxi. (1.) Alienation, conveyance, or purchase in its more limited sense, is a means of transferring real estates, wherein they are voluntarily resigned by one man, and accepted by another.

(2.) This formerly could not be done by a tenant, without *license* from his lord; nor by a lord, without *attornment* of his tenant.

(3.) All persons are *capable* of purchasing; and all that are in possession of any estates, are *capable* of conveying them: unless under peculiar disabilities by law: as being attainted, *non compotes*, infants under duress, feme coverts, aliens, or papists.

(4.) Alienations are made by *common assurances*; which are, 1. By *deed*, or matter in *pais*. 2. By matter of *record*. 3. By special *custom*. 4. By *devise*.

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Sect. XX. *Of Alienation by Deed.*

lxxxii. (1.) In assurances by *deed* may be considered, 1. Its *general nature*. 2. Its *several species*.

(2.) A deed, in *general*, is the solemn act of the parties; being usually a writing sealed and delivered; and it may be, 1. A deed indented, or indenture. 2. A deed poll.

(3.) The *requisites* of a deed are, 1. Sufficient *parties*, and proper *subject matter*. 2. A good and sufficient *consideration*. 3. *Writing* on paper, or parchment, duly stamped. 4. Legal and orderly *parts*; (which are usually, 1st, the premises; 2dly, the *habendum*; 3dly, the *tenendum*; 4thly, the *reddendum*; 5thly, the conditions; 6thly, the warranty, which is either lineal or collateral; 7thly, the covenants; 8thly, the conclusion, which includes the date). 5. *Reading* it, if desired. 6. *Sealing*, and, in many cases, *signing* it also. 7. *Delivery*. 8. *Attestation*.

(4.) A deed may be *avoided*, 1. By the want of any of the requisites before mentioned. 2. By subsequent matter; as, 1st, Rasure, or alteration. 2dly, Defacing its seal. 3dly, Cancelling it. 4thly, Disagreement of those whose consent is necessary. 5thly, Judgment of a court of justice.

(5.) Of the several *species* of deeds, some serve to *convey* real property, some only to *charge* and *discharge* it.

(6.) Deeds which serve to *convey* real property, or *conveyances*, are either by *common law*, or by *statute*. And, of conveyances by *common law*, some are *original* or primary, others *derivative* or secondary.

(7.) *Original* conveyances are, 1. *Feoffments*. 2. *Gifts*. 3. *Grants*. 4. *Leases*. 5. *Exchanges*. 6. *Partitions*. *Derivative* are, 7. *Releases*. 8. *Confirmations*. 9. *Surrenders*. 10. *Assignments*. 11. *Defeazances*.

(8.) A *feoffment* is the transfer of any *corporeal* hereditament to another, perfected by *livery* of *seisin*, or delivery of bodily possession from the feoffer to the feoffee; without which no freehold estate therein can be created at common law.

(9.) A *gift* is properly the conveyance of lands in tail.

(10.) A *grant* is the regular method, by common law, of conveying *incorporeal* hereditaments.

(11.) A *lease* is the demise, granting, or letting to farm of any tenement, usually for a less term than the lessor hath therein; yet sometimes possibly for a greater; according to the regulations of the restraining and enabling statutes.

(12.) An *exchange* is the mutual conveyance of equal interests, the one in consideration of the other.

(13.) A *partition* is the division of an estate held in joint tenancy, in coparcenary, or in common, between the respective tenants; so that each may hold his distinct part in severalty.

(14.) A *release* is the discharge or conveyance of a man's right, in lands and tenements, to another that hath some former estate in possession therein.

(15.) A *confirmation* is the conveyance of an estate or right *in esse*, whereby a voidable estate is made sure, or a particular estate is increased.

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(16.) A *surrender* is the yielding up of an estate for life, or years, to him that hath the immediate remainder or reversion; wherein the particular estate may merge.

(17.) An *assignment* is the transfer, or making over to another, of the whole right one has in any estate; but usually in a lease, for life or years.

(18.) A *defeazance* is a collateral deed, made at the same time with the original conveyance; containing some condition, upon which the estate may be defeated.

(19.) Conveyances by *statute* depend much on the doctrine of *uses* and *trusts:* which are a confidence reposed in the *terre tenant*, or tenant of the land, that he shall permit the profits to be enjoyed, according to the directions of *cestuy que use*, or *cestuy que trust.*

(20.) The statute of uses, having transferred all uses into actual possession, (or, rather, having drawn the possession to the use,) has given birth to divers other species of conveyance: 1. A *covenant* to stand seized to *use.* 2. A *bargain* and *sale* enrolled. 3. A *lease* and *release.* 4. A deed to *lead* or *declare* the use of other more direct conveyances. 5. A *revocation* of *uses;* being the execution of a power, reserved at the creation of the use, of recalling at a future time the use or estate so creating. All which owe their present operation principally to the statute of uses.

(21.) Deeds which are used not to *convey*, but only to *charge* real property, and *discharge* it, are, 1. *Obligations.* 2. *Recognizances.* 3. *Defeazances* upon both.

Sect. XXI. *Of Alienation by matter of Record.*

lxxxiii. (1.) Assurances by matter of *record* are where the sanction of some court of record is called in, to substantiate and witness the transfer of real property. These are, 1. *Private acts* of *parliament.* 2. The *king's grants.* 3. *Fines.* 4. Common *recoveries.*

(2.) *Private acts* of *parliament* are a species of assurances, calculated to give (by the transcendant authority of parliament) such reasonable powers or relief as are beyond the reach of the ordinary course of law.

(3.) The *king's grants*, contained in charters or letters patent, are all entered on record, for the dignity of the royal person, and security of the royal revenue.

(4.) A *fine* (sometimes said to be a feoffment of record) is an amicable composition and agreement of an actual, or fictitious, suit; whereby the estate in question is acknowledged to be the right of one of the parties.

(5.) The *parts* of a fine are, 1. The writ of covenant. 2. The license to agree. 3. The concord. 4. The note. 5. The foot. To which the statute hath added, 6. Proclamations.

(6.) Fines are of four *kinds: Sur cognizance de droit, come ceo que il ad de son done.* 2. *Sur cognizance de droit tantum.* 3. *Sur concessit.* 4. *Sur done, grant, et render;* which is a double fine.

(7.) The *force* and *effect* of fines (when levied by such as have themselves any interest in the estate) are to assure the lands in question to the cognizee, by barring the respective rights of parties, privies, and strangers.

(8.) A common *recovery* is by an actual, or fictitious, suit or action for land, brought against the tenant of the freehold; who thereupon vouches another, who undertakes to warrant the tenant's title: but, upon such vouchee's making default, the land is *recovered* by judgment at law against the tenant; who, in return, obtains judgment against the vouchee to recover lands of equal value in recompense.

(9.) The *force* and *effect* of a recovery are to assure lands to the recoverer, by barring estates tail, and all remainders and reversions expectant thereon; provided the tenant in tail either suffers, or is vouched in, such recovery.

(10.) The *uses* of a fine or recovery may be directed by, 1. Deeds to *lead* such uses; which are made previous to the levying or suffering them. 2. Deeds to *declare* the uses; which are made subsequent.

Sect. XXII. *Of Alienation by Special Custom.*

lxxxiv. (1.) Assurances by special *custom* are confined to the transfer of *copyhold* estates.

(2.) This is effected by, 1. *Surrender* by the tenant into the hands of the lord to the use of another, according to the custom of the manor. 2. *Presentment*, by the tenants or homage, of such surrender. 3. *Admittance* of the surrenderee by the lord, according to the uses expressed in such surrender.

(3.) *Admittance* may also be had upon original *grants* to the tenant from the lord, and upon *descents* to the heir from the ancestor.

Sect. XXIII. *Of Alienation by Devise.*

lxxxv. (1.) Devise is a disposition of lands and tenements, contained in the last will and testament of the owner.

(2.) This was not permitted by the common law, as it stood since the conquest; but was introduced by the statute law, under Henry VIII. since made more universal by the statute of tenures under Charles II. with the introduction of additional solemnities by the statute of frauds and perjuries in the same reign.

(3.) The *construction* of all *common assurances* should be, 1. Agreeable to the intention. 2. To the words of the parties. 3. Made upon the entire deed. 4. Bearing strongest against the contractor. 5. Conformable to law. 6. Rejecting the latter of two totally repugnant clauses in a deed, and the former in a will. 7. Most favourable in a case of devise.

Sect. XXIV. *Of Things Personal.*

lxxxvi. (1.) Things *personal* are comprehended under the general name of *chattels;* which includes whatever wants either the duration, or the immobility, attending things real.

(2.) In these are to be considered, 1. Their *distribution.* 2. The *property* of them. 3. The *title* to that property.

(3.) As to the *distribution* of chattels, they are, 1. Chattels *real.* 2. Chattels *personal.*

(4.) Chattels *real* are such quantities of interest, in things *immoveable*, as are short of the duration of freeholds; being limited to a time certain, beyond which they cannot subsist. (See Sect. 7.)

(5.) Chattels

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(5.) Chattels *personal* are things *moveable*; which may be transferred from place to place, together with the person of the owner.

Sect. XXV. *Of Property in Things Personal.*

lxxvii. (1.) Property, in chattels personal, is either in *possession*, or in *action*.

(2.) Property in *possession*, where a man has the actual enjoyment of the thing, is, 1. *Absolute*. 2. *Qualified*.

(3.) *Absolute* property is where a man has such an exclusive right in the thing, that it cannot cease to be his, without his own act or default.

(4.) *Qualified* property is such as is not, in its nature, permanent; but may sometimes subsist, and at other times not subsist.

(5.) This may arise, 1. Where the subject is incapable of absolute ownership. 2. From the peculiar circumstances of the owners.

(6.) Property in *action*, is where a man hath not the actual *occupation* of the thing; but only a *right* to it, arising upon some contract, and recoverable by an action at law.

(7.) The property of chattels personal is liable to remainders, expectant on estates for life; to joint tenancy; and to tenancy in common.

Sect. XXVI. *Of Title to Things Personal by Occupancy.*

lxxviii. (1.) The *title* to things personal may be acquired or lost by, 1. *Occupancy*. 2. *Prerogative*. 3. *Forfeiture*. 4. *Custom*. 5. *Succession*. 6. *Marriage*. 7. *Judgment*. 8. *Gift*, or *grant*. 9. *Contract*. 10. *Bankruptcy*. 11. *Testament*. 12. *Administration*.

(2.) Occupancy still gives the first occupant a right to those few things which have no legal owner, or which are incapable of permanent ownership. Such as, 1. Goods of alien enemies. 2. Things found. 3. The benefit of the elements. 4. Animals *feræ naturæ*. 5. Emblements. 6. Things gained by accession; or, 7. By confusion. 8. Literary property.

Sect. XXVII. *Of Title by Prerogative, and Forfeiture.*

lxxix. (1.) By *prerogative* is vested in the crown, or its granters, the property of the royal revenue, (see Chap. I. Sect. 8.); and also the property of all game in the kingdom, with the right of pursuing and taking it.

(2.) By *forfeiture*, for crimes and misdemeanors, the right of goods and chattels may be transferred from one man to another; either in part or totally.

(3.) Total forfeitures of goods arise from conviction of, 1. Treason, and misprision thereof. 2. Felony. 3. Excusable homicide. 4. Outlawry for treason or felony. 5. Flight. 6. Standing mute. 7. Assaults on a judge; and batteries, sitting the courts. 8. *Præmunire*. 9. Pretended prophecies. 10. Owling. 11. Residing abroad of artificers. 12. Challenges to fight, for debts at play.

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Sect. XXVIII. *Of Title by Custom.*

xc. (1.) By *custom*, obtaining in particular places, a right may be acquired in chattels; the most usual of which customs are those relating to, 1. *Heriots*. 2. *Mortuaries*. 3. *Heir looms*.

(2.) *Heriots* are either heriot *service*, which differs little from a rent; or heriot *custom*, which is a customary tribute, of goods and chattels, payable to the lord of the fee on the decease of the owner of lands.

(3.) *Mortuaries* are a customary gift, due to the minister in many parishes, on the death of his parishioners.

(4.) *Heir looms* are such personal chattels as descend by special custom to the heir, along with the inheritance of his ancestor.

Sect. XXIX. *Of Title by Succession, Marriage, and Judgment.*

xci. (1.) By *succession* the right of chattels is vested in corporations *aggregate*; and likewise in such corporations *sole* as are the heads and representatives of bodies aggregate.

(2.) By *marriage* the chattels real and personal of the wife are vested in the husband, in the same degree of property, and with the same powers, as the wife when sole had over them; provided he reduces them to possession.

(3.) The wife also acquires, by marriage, a property in her own *paraphernalia*.

(4.) By *judgment*, consequent on a suit at law, a man may in some cases, not only *recover*, but originally *acquire*, a right to personal property. As, 1. To penalties recoverable by action popular. 2. To damages. 3. To costs of suit.

Sect. XXX. *Of Title by Gift, Grant, and Contract.*

xcii. (1.) A *gift*, or *grant*, is a voluntary conveyance of a chattel personal in possession, without any consideration or equivalent.

(2.) A *contract* is an agreement, upon sufficient consideration, to do or not to do a particular thing: and, by such contract, any personal property (either in possession or in action) may be transferred.

(3.) Contracts may either be express or implied; either executed or executory.

(4.) The *consideration* of contracts is, 1. A good consideration. 2. A valuable consideration; which is, 1. *Do, ut des*. 2. *Facio, ut facias*. 3. *Facio, ut des*. 4. *Do, ut facias*.

(5.) The most usual *species* of personal contracts are, 1. *Sale* or *exchange*. 2. *Bailment*. 3. *Hiring* or *borrowing*. 4. *Debt*.

(6.) *Sale* or *exchange* is a transmutation of property from one man to another, in consideration of some recompense in value.

(7.) *Bailment* is the delivery of goods in trust; upon a contract, express or implied, that the trust shall be faithfully performed by the bailee.

(8.) *Hiring* or *borrowing* is a contract, whereby the

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possession of chattels is transferred for a particular time, on condition that the identical goods (or sometimes their value) be restored at the time appointed, together with (in case of *hiring*) a stipend or price for the use.

(9.) This price, being calculated to answer the hazard as well as inconvenience of lending, gives birth to the doctrine of *interest*, or *usury*, upon loans; and, consequently, to the doctrine of *bottomry* or *respondentia*, and *insurance*.

(10.) *Debt* is any contract, whereby a certain sum of *money* becomes due to the creditor. This is, 1. A debt of *record*. 2. A debt upon *special* contract. 3. A debt upon *simple* contract; which last includes paper credit, or bills of exchange, and promissory notes.

Sect. XXXI. *Of Title by Bankruptcy.*

xciii. (1.) Bankruptcy (as defined in Sect. 18.) is the act of becoming a bankrupt.

(2.) Herein may be considered, 1. Who may become a bankrupt. 2. The *acts* whereby he may become a bankrupt. 3. The *proceedings* on a commission of bankrupt. 4. How his *property* is transferred thereby.

(3.) Persons of full age, *using* the *trade* of merchandise, by buying, and selling, and seeking their livelihood thereby, are liable to become bankrupts; for debts of a sufficient amount.

(4.) A trader, who endeavours to avoid his creditors, or evade their just demands, by any of the ways specified in the several statutes of bankruptcy, doth thereby commit an *act* of bankruptcy.

(5.) The *proceedings* on a commission of bankrupt, so far as they affect the bankrupt himself, are principally by, 1. Petition. 2. Commission. 3. Declaration of bankruptcy. 4. Choice of assignees. 5. The bankrupt's surrender. 6. His examination. 7. His discovery. 8. His certificate. 9. His allowance. 10. His indemnity.

(6.) The *property* of a bankrupt's personal estate is, immediately upon the act of bankruptcy, vested by construction of law in the assignees; and they, when they have collected, distribute the whole by equal dividends among all the creditors.

Sect. XXXII. *Of Title by Testament, and Administration.*

xciv. (1.) Concerning *testaments* and *administrations*, considered jointly, are to be observed, 1. Their *original* and *antiquity*. 2. *Who* may make a testament. 3. Its *nature* and *incidents*. 4. What are *executors* and *administrators*. 5. Their *office* and *duty*.

(2.) *Testaments* have subsisted in England immemorially; whereby the deceased was at liberty to dispose of his personal estate, reserving anciently to his wife and children their *reasonable part* of his effects.

(3.) The goods of *intestates* belonged anciently to the king; who granted them to the prelates to be disposed in pious uses: but, on their abuse of this trust in the times of Popery, the legislature compelled them to delegate their power to *administrators* expressly provided by law.

(4.) *All* persons may make a testament unless disabled by, 1. Want of discretion. 2. Want of free will. 3. Criminal conduct.

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(5.) *Testaments* are the legal declaration of a man's intentions, which he wills to be performed after his death. These are, 1. Written. 2. Nuncupative.

(6.) An *executor* is he, to whom a man by his will commits the execution thereof.

(7.) *Administrators* are, 1. *Durante minore ætate* of an infant executor or administrator; or *durante absentia*; or *pendente lite*. 2. *Cum testamento annexo*; when no executor is named, or the executor refuses to act. 3. General administrators; in pursuance of the statutes of Edward III. and Henry VIII. 4. Administers *de bonis non*; when a former executor or administrator dies without completing his trust.

(8.) The *office* and *duty* of executors (and, in many points, of administrators also) are, 1. To bury the deceased. 2. To prove the will, or take out administration. 3. To make an inventory. 4. To collect the goods and chattels. 5. To pay debts, observing the rules of priority. 6. To pay legacies, either general or specific; if they be vested, and not lapsed. 7. To distribute the undevised surplus, according to the statute of distributions.

Chap. III. *Of* Private Wrongs.

Sect. I. *Of the Redress of Private Wrongs, by the mere Act of the Parties.*

xcv. (1.) Wrongs are the privation of *right*; and are, 1. *Private*. 2. *Public*.

(2.) *Private wrongs*, or *civil injuries*, are an infringement, or privation, of the civil rights of individuals, considered as individuals.

(3.) The *redress* of civil injuries is one principal object of the laws of England.

(4.) This *redress* is effected, 1. By the mere *act* of the parties. 2. By the mere *operation* of *law*. 3. By *both* together, or *suit* in *courts*.

(5.) *Redress*, by the mere *act* of the parties, is that which arises, 1. From the *sole* act of the party injured. 2. From the *joint* act of the parties.

(6.) Of the first sort are, 1. Defence of one's self, or relations. 2. Recaption of goods. 3. Entry on lands and tenements. 4. Abatement of nuisances. 5. Distress; for rent, for suit or service; for amercements, for damage, or divers statutable penalties; made of such things only as are legally distrainable;—and taken and disposed of according to the due course of law. 6. Seising of heriots, &c.

(7.) Of the second sort are, 1. Accord. 2. Arbitration.

Sect. II. *Of Redress by the mere Operation of Law.*

xcvi. Redress, effected by the mere *operation* of *law*, is, 1. In the case of *retainer*; where a creditor is executor or administrator, and is thereupon allowed to retain his own debt. 2. In the case of *remitter*; where one, who has a *good* title to lands, &c. comes into possession by a *bad* one, and is thereupon remitted to his ancient good title, which protects his ill-acquired possession.

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Sect. III. *Of Courts in General.*

xcvii. (1.) Redress, that is effected by the *act* both of law and of the *parties*, is by *suit* or *action* in the *courts* of justice.

(2.) Herein may be considered, 1. The *courts* themselves. 2. The *cognizance* of wrongs or injuries therein. And, of *courts*, 1. Their *nature* and *incidents*. 2. Their several *species*.

(3.) A *court* is a place wherein justice is judicially administered, by officers delegated by the crown; being a court either of record, or not of record.

(4.) *Incident* to all courts are a plaintiff, defendant, and judge: and, with us, there are also usually attorneys; and advocates or counsel, viz. either barristers or serjeants at law.

Sect. IV. *Of the Public Courts of Common Law and Equity.*

xcviii. (1.) Courts of justice, with regard to their several *species*, are, 1. Of a *public*, or general, jurisdiction throughout the realm. 2. Of a *private*, or special, jurisdiction.

(2.) *Public* courts of justice are, 1. The courts of *common law* and *equity*. 2. The *ecclesiastical* courts. 3. The *military* courts. 4. The *maritime* courts.

(3.) The general and public courts of *common law* and *equity* are, 1. The court of piepoudre. 2. The court-baron. 3. The hundred court. 4. The county court. 5. The court of common pleas. 6. The court of king's bench. 7. The court of exchequer. 8. The court of chancery. (Which two last are courts of *equity* as well as *law*). 9. The courts of exchequer chamber. 10. The house of peers. To which may be added, as auxiliaries, 11. The courts of assize and *nisi prius*.

Sect. V. *Of Courts Ecclesiastical, Military, and Maritime.*

xcix. (1.) Ecclesiastical courts, (which were separated from the *temporal* by William the Conqueror), or courts *Christian*, are, 1. The courts of the archdeacon. 2. The court of the bishop's consistory. 3. The court of arches. 4. The court of peculiars. 5. The prerogative court. 6. The court of delegates. 7. The court of review.

(2.) The only permanent *military* court is that of chivalry; the courts martial, annually established by act of parliament, being only temporary.

(3.) *Maritime* courts are, 1. The court of admiralty and vice-admiralty. 2. The court of delegates. 3. The lords of the privy council, and others, authorized by the king's commission, for appeals in prize-causes.

Sect. VI. *Of Courts of a Special Jurisdiction.*

c. Courts of a special or private jurisdiction are, 1. The forest court; including the courts of attachments, regard, swienmot, and justice seat. 2. The court of commissioners of sewers. 3. The court of policies of assurance. 4. The court of the marshalsea and the palace court. 5. The courts of the principality of Wales. 6. The court of the duchy chamber of Lancaster. 7. The courts of the counties palatine, and other royal franchises. 8. The stannery courts. 9. The courts of London, and other corporations:—To which may be referred the courts of requests or courts of conscience; and the modern regulations of certain courts baron and county courts. 10. The courts of the two universities.

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Sect. VII. *Of the Cognizance of Private Wrongs.*

ci. (1.) All private wrongs or civil injuries are *cognizable* either in the courts *ecclesiastical*, *military*, *maritime*, or those of *common law*.

(2.) Injuries cognizable in the *ecclesiastical* courts are, 1. *Pecuniary*. 2. *Matrimonial*. 3. *Testamentary*.

(3.) *Pecuniary* injuries, here cognizable, are, 1. *Subtraction* of *tithes*. For which the remedy is by suit to compel their payment, or an equivalent; and also their double value. 2. *Non-payment* of ecclesiastical *dues*. Remedy: by suit for payment. 3. *Spoliation*. Remedy: by suit for restitution. 4. *Dilapidations*. Remedy: by suit for damages. 5. *Non-repair* of the church, &c.; and *non-payment* of church-rates. Remedy: by suit to compel them.

(4.) *Matrimonial* injuries are, 1. *Jactitation* of *marriage*. Remedy: by suit for perpetual silence. 2. *Subtraction* of *conjugal* rights. Remedy: by suit for restitution. 3. *Inability* for the marriage state. Remedy: by suit for divorce. 4. *Refusal* of decent *maintenance* to the wife. Remedy: by suit for alimony.

(5.) *Testamentary* injuries are, 1. *Disputing* the validity of *wills*. Remedy: by suit to establish them. 2. *Obstructing* of *administrations*. Remedy: by suit for the granting them. 3. *Subtraction* of *legacies*. Remedy: by suit for the payment.

(6.) The course of proceedings herein is much conformed to the civil and canon law: but their only compulsive process is that of excommunication; which is enforced by the temporal writ of *significavit*, or *de excommunicato capiendo*.

(7.) Civil injuries, cognizable in the court *military*, or court of chivalry, are, 1. Injuries in point of *honour*. Remedy: by suit for honourable amends. 2. *Encroachments* in *coat-armour*, &c. Remedy: by suit to remove them. The proceedings are in a summary method.

(8.) Civil injuries cognizable in the courts *maritime*, are injuries, in their nature, of common law cognizance, but arising wholly upon the sea, and not within the precincts of any county. The proceedings are herein also much conformed to the civil law.

(9.) All other injuries are cognizable only in the courts of *common law*: of which in the remainder of this chapter.

(10.) Two of them are, however, commissible by these and other inferior courts, viz. 1. *Refusal*, or *neglect* of *justice*. Remedies: by writ of *procedendo*, or *mandamus*. 2. *Encroachment* of *jurisdiction*. Remedy: by writ of prohibition.

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Sect. VIII. *Of Wrongs and their Remedies, respecting the Rights of Persons.*

cii. (1.) In treating of the cognizance of injuries by the courts of *common* law, may be considered, 1. The *injuries* themselves, and their respective *remedies*. 2. The *pursuit* of those remedies in the several courts.

(2.) *Injuries* between subject and subject, cognizable by the courts of *common* law, are in general *remedied* by putting the party injured into possession of the right whereof he is unjustly deprived.

(3.) This is effected, 1. By *delivery* of the *thing* detained to the rightful owner. 2. Where that remedy is either impossible or inadequate, by giving the party injured a *satisfaction* in *damages*.

(4.) The instruments, by which these remedies may be obtained, are *suits* or *actions;* which are defined to be the legal demand of one's right: and these are, 1. Personal. 2. Real. 3. Mixed.

(5.) Injuries (whereof some are with, others without, *force*) are, 1. Injuries to the rights of *persons*. 2. Injuries to the rights of *property*. And the former are, 1. Injuries to the *absolute*, 2. Injuries to the *relative*, rights of persons.

(6.) The *absolute* rights of individuals are, 1. *Personal security*. 2. *Personal liberty*. 3. *Private property:* (See Chap. I. Sect. 1.) To which the injuries must be correspondent.

(7.) Injuries to *personal security* are, 1. Against a man's *life*. 2. Against his *limbs*. 3. Against his *body*. 4. Against his *health*. 5. Against his *reputation*.—The first must be referred to the next chapter.

(8.) Injuries to the *limbs* and *body* are, 1. *Threats*. 2. *Assault*. 3. *Battery*. 4. *Wounding*. 5. *Mayhem*. Remedy: by action of trespass, *vi et armis;* for damages.

(9.) Injuries to *health*, by any unwholesome practices, are remedied by a special action of trespass, on the case; for damages.

(10.) Injuries to *reputation* are, 1. Slanderous and malicious *words*. Remedy: by action on the case; for damages. 2. *Libels*. Remedy: the same. 3. Malicious *prosecutions*. Remedy: by action of conspiracy, or on the case; for damages.

(11.) The sole injury to *personal liberty* is *false imprisonment*. Remedies: 1. By writ of, 1st, Mainprize; 2dly, *Odio et atia;* 3dly, *Homine replegiando;* 4thly, *Habeas corpus;* to remove the wrong. 2. By action of trespass; to recover damages.

(12.) For injuries to *private property*, see the next section.

(13. Injuries to *relatives* rights affect, 1. *Husbands*. 2. *Parents*. 3. *Guardians*. 4. *Masters*.

(14.) Injuries to a *husband* are, 1. *Abduction*, or taking away his wife. Remedy: by action of trespass, *de uxore rapta et abducta;* to recover possession of his wife, and damages. 2. *Criminal conversation* with her. Remedy: by action on the case; for damages. 3. *Beating* her. Remedy: by action on the case, *per quod consortium amisit;* for damages.

(15.) The only injury to a *parent* or *guardian* is the *abduction* of their children or wards. Remedy: by action of trespass, *de filiis, vel custodiis, raptis vel abductis*, to recover possession of them, and damages.

(16.) Injuries to a *master* are, 1. *Retaining* his servants. Remedy: by action on the case; for damages. 2. *Beating* them. Remedy: by action on the case, *per quod servitium amisit;* for damages.

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Sect. IX. *Of Injuries to Personal Property.*

(1.) Injuries to the rights of *property* are either to those of *personal* or *real* property. ciii.

(2.) *Personal* property is either in *possession* or in *action*.

(3.) Injuries to personal property in possession are, 1. By *dispossession*. 2. By *damage*, while the owner remains in possession.

(4.) *Dispossession* may be effected, 1. By an unlawful *taking*. 2. By an unlawful *detaining*.

(5.) For the unlawful *taking* of goods and chattels personal, the remedy is, 1. Actual restitution, which (in case of a wrongful distress) is obtained by action of replevin. 2. Satisfaction in damages: 1*st*, in case of *rescous*, by action of *rescous*, poundbreach, or on the case; 2*dly*, in case of other unlawful takings, by action of trespass or trover.

(6.) For the unlawful *detaining* of goods lawfully taken, the remedy is also, 1. Actual restitution; by action of replevin or detinue. 2. Satisfaction in damages; by action on the case, for trover and conversion.

(7.) For *damage* to personal property, while in the owner's possession, the remedy is in damages; by action of trespass *vi et armis*, in case the act be immediately injurious; or by action of trespass on the case, to redress consequential damage.

(8.) Injuries to personal property, in *action*, arise by breach of *contracts*, 1. *Express*. 2. *Implied*.

(9.) Breaches of *express* contracts are, 1. By *nonperformance* of *debts*. Remedy: 1*st*, Specific payment recoverable by action of debt. 2*dly*, Damages for nonpayment; recoverable by action on the case. 2. By *nonperformance* of *covenants*. Remedy: by action of covenant, 1*st*, to recover damages, in covenants personal; 2*dly*, to compel performance, in covenants real. 3. By *nonperformance* of *promises*, or *assumpsits*. Remedy: by action on the case; for damages.

(10.) *Implied* contracts are such as arise, 1. From the nature and constitution of *government*. 2. From *reason* and the construction of law.

(11.) Breaches of contracts, implied in the nature of *government*, are by the *nonpayment* of money which the laws have directed to be paid. Remedy: by action of debt (which, in such cases is frequently a *popular* frequently a *qui tam* action); to compel the specific payment;—or, sometimes, by action on the case; for damages.

(12.) Breaches of contracts, implied in *reason* and construction of law, are by the *nonperformance* of legal presumptive *assumpsits:* for which the remedy is in damages; by an action on the case on the implied *assumpsits*, 1. Of a *quantum meruit*. 2. Of a *quantum valebat*. 3. Of money expended for another. 4. Of receiving money to another's use. 5. Of an *insimul computassent*, on an account stated (the remedy on an account unstated being by action of account). 6. Of performing one's duty, in any employment, with integrity, diligence, and skill. In some of which cases an

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an action of deceit (on the case, in nature of deceit) will lie.

Sect. X. *Of Injuries to Real Property; and, first, of Dispossession, or Ouster, of the Freehold.*

civ. (1.) Injuries affecting *real* property are, 1. *Ouster.* 2. *Trespass.* 3. *Nuisances.* 4. *Waste.* 5. *Subtraction.* 6. *Disturbance.*

(2.) *Ouster* is the amotion of possession; and is, 1. From *freeholds.* 2. From *chattels* real.

(3.) Ouster from *freeholds* is effected by, 1. *Abatement.* 2. *Intrusion.* 3. *Disseisin.* 4. *Discontinuance.* 5. *Deforcement.*

(4.) *Abatement* is the entry of a stranger, after the death of the ancestor, before the heir.

(5.) *Intrusion* is the entry of a stranger, after a particular estate of freehold is determined, before him in remainder or reversion.

(6.) *Disseisin* is a wrongful putting out of him that is seised of the freehold.

(7.) *Discontinuance* is where tenant in tail, or the husband of tenant in fee, makes a larger estate of the land than the law alloweth.

(8.) *Deforcement* is any other detainer of the freehold from him that hath the property, but who never had the possession.

(9.) The universal remedy for all these is restitution or delivery of possession; and, sometimes, damages for the detention. This is effected, 1. By mere *entry.* 2. By action *possessory.* 3. By writ of *right.*

(10.) Mere *entry*, on lands, by him who hath the apparent right of possession, will (if *peaceable*) divest the mere *possession* of a wrongdoer. But *forcible* entries are remedied by immediate restitution, to be given by a justice of the peace.

(11.) Where the wrongdoer hath not only mere possession, but also an *apparent* right of possession, this may be divested by him who hath the *actual* right of possession, by means of the *possessory* actions of *writ* of *entry* or *assize.*

(12.) A writ of *entry* is a real action, which disproves the title of the tenant, by showing the unlawful means under which he gained or continues possession. And it may be brought either against the wrongdoer himself, or in the degrees called the *per*, the *per* and *cui*, and the *post.*

(13.) An *assize* is a real action, which proves the title of the demandant, by showing his own or his ancestor's possession. And it may be brought either to remedy abatements; viz. the assize of *mort d'ancestor*, &c.: Or to remedy recent disseisins; viz. the assize of *novel disseisin.*

(14.) Where the wrongdoer hath gained the actual right of *possession*, he who has the right of *property* can only be remedied by a writ of *right*, or some writ of a similar nature. As, 1. Where such right of possession is gained by the *discontinuance* of tenant in tail. Remedy, for the right of property: by writ of *formedon.* 2. Where gained by *recovery* in a possessory action, had against tenants of particular estates by their own default. Remedy: by writ of *quod ei deforceat.* 3. Where gained by *recovery* in a possessory action, had upon the merits. 4. Where gained by the *statute* of *limitations.* Remedy, in both cases: by a mere writ of *right*, the highest writ in the law.

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Sect. XI. *Of Dispossession, or Ouster, of Chattels real.*

(1.) Ouster from *chattels* real is, 1. From estates by *statute* and *elegit.* 2. From an estate for *years.* cv.

(2.) Ouster from estates by *statute* or *elegit*, is effected by a kind of *disseisin.* Remedy: restitution, and damages; by assize of *novel disseisin.*

(3.) Ouster from an estate for years, is effected by a like disseisin, or *ejectment.* Remedy: restitution, and damages; 1. By writ of *ejectione firmæ.* 2. By writ of *quare ejecit infra terminum.*

(4.) A writ of *ejectione firmæ*, or action of trespass in ejectment, lieth where lands, &c. are let for a term of years, and the lessee is ousted or ejected from his term; in which case he shall recover possession of his term, and damages.

(5.) This is now the usual method of trying titles to land, instead of an action real: viz. By, 1. The claimant's making an actual (or supposed) lease upon the land to the plaintiff. The plaintiff's actual (or supposed) entry thereupon. 3. His actual (or supposed) ouster and ejectment by the defendant. For which injury this action is brought either against the tenant, or (more usually) against some casual or fictitious ejector; in whose stead the tenant may be admitted defendant, on condition that the lease, entry, and ouster, be confessed, and that nothing else be disputed but the merits of the title claimed by the lessor of the plaintiff.

(6.) A writ of *quare ejecit infra terminum* is an action of a similar nature; only not brought against the wrongdoer or ejector himself, but such as are in possession under his title.

Sect. XII. *Of Trespass.*

Trespass is an entry upon, and damage done to, another's lands, by one's self, or one's cattle; without any lawful authority, or cause of justification: which is called a *breach of his close.* Remedy: damages; by action of trespass, *quare clausum fregit;* besides that of distress, damage feasant. But, unless the title to the land came chiefly in question, or the trespass was wilful or malicious, the plaintiff (if the damages be under forty shillings) shall recover no more costs than damages. cvi.

Sect. XIII. *Of Nuisance.*

(1.) Nuisance, or annoyance, is any thing that worketh damage or inconvenience: and it is either a *public* and *common* nuisance, of which in the next chapter; or, a *private* nuisance, which is any thing done to the hurt or annoyance of, 1. The corporeal; 2. The incorporeal, hereditaments of another. cvii.

(2.) The remedies for a private nuisance (besides that of abatement) are, 1. Damages; by action on the case; (which also lies for special prejudice by a public nuisance). 2. Removal thereof and damages; by assize of nuisance. 3. Like removal, and damages; by writ of *Quod permittat prosternere.*

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Sect. XIV. *Of Waste.*

cviii. (1.) Waste is a spoil and destruction in lands and tenements, to the injury of him who hath, 1. An immediate interest (as, by right of common) in the lands. 2. The remainder of reversion of the inheritance.

(2.) The remedies, for a commoner, are restitution, and damages; by assize of common: Or damages only; by action on the case.

(3.) The remedy, for him in remainder, or reversion, is, 1. Preventive: by writ of *estrepement* at law, or injunction out of chancery; to stay waste. 2. Corrective: by action of waste; to recover the place wasted, and damages.

Sect. XV. *Of Subtraction.*

cix. (1.) Subtraction is when one, who owes services to another, withdraws or neglects to perform them. This may be, 1. Of rents, and other services, due by *tenure*. 2. Of those due by *custom*.

(2.) For subtraction of rents and services, due by *tenure*, the remedy is, 1. By distress; to compel the payment or performance. 2. By action of debt. 3. By assize. 4. By writ *de consuetudinibus et servitiis;*—to compel the payment. 5. By writ of *cessavit;*—and, 6. By writ of right *sur disclaimer;*—to recover the land itself.

(3.) To remedy the oppression of the land, the law has also given, 1. The writ of *Ne injustè vexes*. 2. The writ of *mesne*.

(4.) For subtraction of services, due by *custom*, the remedy is, 1. By writ of *Secta ad molendinum, furnum torrale*, &c. to compel the performance, and recover damages. 2. By action on the case; for damages only.

Sect. XVI. *Of Disturbance.*

cx. (1.) Disturbance is the hindering, or disquieting, the owners of an incorporeal hereditament, in their regular and lawful enjoyment of it.

(2.) Disturbances are, 1. Of *franchises*. 2. Of *commons*. 3. Of *ways*. 4. Of *tenure*. 5. Of *patronage*.

(3.) Disturbance of *franchises* is remedied by a special action on the cases; for damages.

(4.) Disturbance of *common*, is, 1. *Intercommoning* without right. Remedy: damage; by an action of the case, or of trespass: besides distress, damage feasant; to compel satisfaction. 2. *Surcharging* the common. Remedies: distress, damage feasant; to compel satisfaction: action on the case; for damages: or, writ of admeasurement of pasture; to apportion the common: and writ *de secunda superoneratione;* for the supernumerary cattle, and damages. 3. *Enclosure*, or obstruction. Remedies: restitution of the common and damages; by assize of *novel disseisin*, and by writ of *quod admittat:* or, damages only; by action on the case.

(5.) Disturbance of *ways*, is the obstruction, 1. Of a way in gross, by the owner of the land. 2. Of a way appendant, by a stranger. Remedy, for both: damages; by action on the case.

(6.) Disturbance of *tenure*, by driving away tenants, is remedied by a special action on the case; for damages. Law of England Epitomised.

(7.) Disturbance of *patronage*, is the hinderance of a patron to present his clerk to a benefice; whereof *usurpation*, within six months, is now become a species.

(8.) Disturbers may be, 1. The pseudo-patron, by his wrongful presentation. 2. His clerk, by demanding institution. 3. The ordinary, by refusing the clerk of the true patron.

(9.) The remedies are, 1. By assize of *darrein presentment;* 2. By writ of *quare impedit;*—to compel institution and recover damages: Consequent to which are the writs of *quare incumbravit*, and *quare non admisit;* for subsequent damages. 3. By writ of right of advowson; to compel institution, or establish the permanent right.

Sect. XVII. *Of Injuries Proceeding from, or Affecting, the Crown.*

cxi. (1.) Injuries to which the crown is a party are, 1. Where the crown is the aggressor. 2. Where the crown is the sufferer.

(2.) The crown is the aggressor, whenever it is in possession of any property to which the subject hath a right.

(3.) This is remedied, 1. By *petition* of *right;* where the right is grounded on facts disclosed in the petition itself. 2. By *monstrans de droit;* where the claim is grounded on facts, already appearing on record. The effect of both which is to remove the hands (or possession) of the king.

(4.) Where the crown is the sufferer, the king's remedies are, 1. By such common law actions as are consistent with the royal dignity. 2. By *inquest* of *office*, to recover possession: which, when found, gives the king his right by solemn matter of record; but may afterwards be *traversed* by the subject. 3. By writ of *scire facias*, to repeal the king's patent or grant. 4. By *information* of *intrusion*, to give damages for any trespass on the lands of the crown; or of *debt*, to recover moneys due upon contract, or forfeited by the breach of any penal statute; or sometimes (in the latter case) by information *in rem:* all filed in the exchequer *ex officio* by the king's attorney general. 5. By writ of *quo warranto*, or information in the nature of such writ; to seise into the king's hands any franchise usurped by the subject, or to oust an usurper from any public office. 6. By writ of *mandamus*, unless cause; to admit or restore any person entitled to a franchise or office: to which, if a false cause be returned, the remedy is by traverse, or by action on the case for damages; and, in consequence, a peremptory *mandamus*, or writ of restitution.

Sect. XVIII. *Of the Pursuit of Remedies by Action; and, First, of the Original Writ.*

cxii. (1.) The *pursuit* of the several remedies furnished by the laws of England, is, 1. By *action* in the courts of *common law*. 2. By *proceedings* in the courts of *equity*.

(2.) Of an *action* in the court of *common pleas* (originally

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ginally the proper court for prosecuting civil suits) the orderly parts are, 1. The *original* writ. 2. The *process*. 3. The *pleadings*. 4. The *issue* or *demurrer*. 5. The *trial*. 6. The *judgment*. 7. The proceedings in nature of *appeal*. 8. The *execution*.

(3.) The *original* writ is the beginning or foundation of a suit, and is either *optional* (called a *præcipe*), commanding the defendant to do something in certain, or otherwise show cause to the contrary; or *peremptory*, (called a *si fecerit te securum*), commanding, upon security given by the plaintiff, the defendant to appear in court, to show wherefore he hath injured the plaintiff: both issuing out of chancery under the king's great seal, and returnable in bank during term time.

Sect. XIX. *Of Process.*

cxiii. (1.) Process is the means of compelling the defendant to appear in court.

(2.) This includes, 1. Summons. 2. The writ of attachment, or *pone;* which is sometimes the first or original process. 3. The writ of *distringas*, or distress infinite. 4. The writs of *capias ad respondendum* and *testatum capias:* or, instead of these in the king's bench, the bill of Middlesex, and writ of *latitat:*—and, in the exchequer, the writ of *quo minus*. 5. The *alias* and *pluries* writs. 6. The exigent, or writ of *exigi facias*, proclamations, and outlawry. 7. Appearance and common bail. 8. The arrest. 9. Special bail, first to the sheriff, and then to the action.

Sect. XX. *Of Pleadings.*

cxiv. Pleadings are the mutual altercations of the plaintiff and defendant in writing; under which are comprised, 1. The declaration of court; (wherein, incidentally, of the visne, nonsuit, *retraxit*, and discontinuance.) 2. The defence, claim of cognizance, imparlance, view, oyer, aid-prayer, voucher, or age. 3. The plea; which is either a *dilatory* plea (1*st*, to the jurisdiction; 2*dly*, in disability of the plaintiff; 3*dly*, in abatement), or it is a plea *to the action;* sometimes confessing the action either in whole or in part; (wherein of a tender, paying money into court, and set off): but usually denying the complaint, by pleading either, 1*st*, the general issue: or, 2*dly*, a special bar (wherein of justifications, the statutes of limitation, &c.) 4. Replication, rejoinder, surrejoinder, rebutter, surrebutter, &c. Therein of estoppels, colour, duplicity, departure, new assignment, protestation, averment, and other incidents of pleading.

Sect. XXI. *Of Issue and Demurrer.*

cxv. (1.) Issue is where the parties, in a course of pleadings, come to a point affirmed on one side and denied on the other; which, if it be a matter of law, is called a *demurrer;* if it be a matter of fact, still it retains the name of an issue, of fact.

(2.) *Continuance* is the detaining of the parties in court from time to time, by giving them a day certain to appear upon. And, if any new matter arises since the last continuance or adjournment, the defendant may take advantage of it, even after demurrer or issue, by alleging it in a plea *puis darrein continuance*.

(3.) The determination in an issue of law, or demurrer, is by the opinion of the judges of the court, which is afterwards entered on *record*.

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Sect. XXII. *Of the Several Species of Trial.*

cxvi. (1.) Trial is the examination of the matter of fact put in issue.

(2.) The species of trial are, 1. By the *record*. 2. By *inspection*. 3. By *certificate*. 4. By *witnesses*. 5. By *wager* of *battel*. 6. By *wager* of *law*. 7. By *jury*.

(3.) Trial by the *record* is had, when the existence of such record is the point in issue.

(4.) Trial by *inspection* or *examination* is had by the court, principally when the matter in issue is the evident object of the senses.

(5.) Trial by *certificate* is had in those cases, where such certificate must have been conclusive to a jury.

(6.) Trial by *witnesses* (the regular method in the civil law) is only used on a writ of dower, when the death of the husband is in issue.

(7.) Trial by *wager* of *battel*, in civil cases, is only had on a writ of right; but, in lieu thereof, the tenant may have at his option, the trial by the *grand assize*.

(8.) Trial by *wager* of *law* is only had, where the matter in issue may be supposed to have been privily transacted between the parties themselves, without the intervention of other witnesses.

Sect. XXIII. *Of the Trial by Jury.*

cxvii. (1.) Trial by *jury* is, 1. *Extraordinary*; as, by the grand assize, in writs of right; and by the grand jury, in writs of attaint. 2. *Ordinary*.

(2.) The method and process of the *ordinary* trial by jury is, 1. The writ of *venire facias* to the sheriff, coroners, or elisors; with the subsequent compulsive process of *habeas corpora*, or *distringas*. 2. The carrying down of the record to the court of *nisi prius*. 3. The sheriff's return; or panel of, 1st, special; 2dly, common jurors. 4. The challenges; 1st, to the array; 2dly, to the polls of the jurors; either *propter honoris respectum*, *propter defectum*, *propter affectum*, (which is sometimes a principal challenge, sometimes to the favour), or *propter delictum*. 5. The *tales de circumstantibus*. 6. The oath of the jury. 7. The evidence; which is either by proofs, 1st, written; 2dly, parole:—or, by the private knowledge of the jurors. 8. The verdict; which may be, 1st, privy; 2dly, public; 3dly, special.

Sect. XXIV. *Of Judgment and its Incidents.*

cxviii. (1.) Whatever is transacted at the trial in the court of *nisi prius*, is added to the record under the name of a *postea:* consequent upon which is the *judgment*.

(2.) Judgment may be *arrested* or stayed for causes, 1. Extrinsic, or *dehors* the record; as in the case of *new trials*. 2. Intrinsic, or within it; as where the declaration varies from the writ, or the verdict from the pleadings, and issue; or where the case, laid in the declaration, is not sufficient to support the action in point of law.

(3.) Where the issue is immaterial or insufficient, the court may award a *repleader*.

(4.)

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(4.) *Judgment* is the sentence of the law, pronounced by the court, upon the matter contained in the record.

(5.) Judgments are, 1. Interlocutory; which are incomplete till perfected by a writ of inquiry. 2. Final.

(6.) *Costs*, or expences of suit, are now the necessary consequence of obtaining judgment.

Sect. XXV. *Of Proceedings, in the Nature of Appeals.*

cxix. (1.) Proceedings, in the nature of *appeals* from judgment, are, 1. A writ of *attaint;* to impeach the verdict of a jury; which of late has been superseded by new trials. 2. A writ of *audita querela;* to discharge a judgment by matter that has since happened. 3. A writ of *error*, from one court of record to another; to correct judgments, erroneous in point of law, and not helped by the statutes of amendment and jeofails.

(2.) Writs of error lie, 1. To the court of *king's bench*, from all inferior courts of record; from the court of *common pleas* at Westminster; and from the court of *king's bench* in Ireland. 2. To the courts of *exchequer chamber*, from the law side of the courts of *exchequer;* and from proceedings in the court of *king's bench* by bill. 3. To the house of *peers*, from proceedings in the court of *king's bench* by original, and on writs of error; and from the several courts of *exchequer chamber.*

Sect. XXVI. *Of Execution.*

cxx. Execution is the putting in force of the sentence or judgment of the law. Which is effected, 1. Where possession of any hereditament is recovered: by writ of *habere facias scisinam, possessionem, &c.* 2. Where any thing is awarded to be done or rendered, by a special writ for that purpose: as, by writ of abatement, in case of nuisance; *retorna habendo* and *capias in witheram*, in replevin; *distringas* and *scire facias*, in detinue. 3. Where money only is recovered; by writ of, 1st, *Capias ad satisfaciendum*, against the *body* of the defendant; or in default therefore, *scire facias* against his bail. 2dly, *Fieri facias*, against his *goods* and chattels. 3dly, *Levari facias*, against his *goods* and the *profits* of his lands. 4thly, *Elegit*, against his *goods*, and the *possession* of his *lands*. 5thly, *Extendi facias*, and other process, on statutes, recognizances, &c. against his *body*, *lands*, and *goods*.

Sect. XXVII. *Of Proceedings in the Courts of Equity.*

cxxi. (1.) Matters of equity which belong to the peculiar jurisdiction of the court of *chancery*, are, 1. The guardianship of infants. 2. The custody of idiots and lunatics. 5. The superintendance of charities. 4. Commissions of bankrupt.

(2.) The court of *exchequer* and the duchy court of *Lancaster*, have also some peculiar causes, in which the interest of the king is more immediately concerned.

(3.) *Equity* is the true sense and sound interpretation of the rules of law; and, as such, is equally attended to by the judges of the courts both of common law and equity.

(4.) The essential differences, whereby the English courts of equity are distinguished from the courts of law, are, 1. The mode of *proof*, by a discovery on the oath of the party; which gives a jurisdiction in matters of account, and fraud. 2. The mode of *trial;* by depositions taken in any part of the world. 3. The mode of *relief;* by giving a more specific and extensive remedy than can be had in the courts of law; as, by carrying agreements into execution, staying waste or other injuries by injunction, directing the sale of encumbered lands, &c. 4. The true construction of *securities* for money, by considering them merely as a pledge. 5. The execution of *trusts*, or second uses, in a manner analogous to the law of legal estates.

(5.) The proceedings in the court of chancery (to which those in the exchequer, &c. very nearly conform) are, 1. Bill. 2. Writ of *subpœna;* and, perhaps, injunction. 3. Process of contempt; viz. (ordinarily) attachment, attachment with proclamations, commission of rebellion, serjeant at arms, and sequestrations. 4. Appearance. 5. Demurrer. 6. Plea. 7. Answer. 8. Exceptions; amendments; cross, or supplemental, bills; bills of revivor, interpleader, &c. 9. Replication. 10. Issue. 11. Depositions, taken upon interrogatories; and subsequent publication thereof. 12. Hearing. 13. Interlocutory decree; feigned issue, and trial; reference to the master, and report; &c. 14. Final decree. 15. Rehearing, or bill of review. 16. Appeal to parliament.

Chap. IV. *Of* Public Wrongs.

Sect. I. *Of the Nature of Crimes, and their Punishment.*

cxxii. (1.) In treating of *public wrongs* may be considered, 1. The general *nature* of crimes and punishments. 2. The persons *capable* of committing crimes. 3. Their several *degrees* of guilt. 4. The several *species* of crimes, and their respective punishments. 5. The means of *prevention*. 6. The method of *punishment*.

(2.) A *crime*, or *misdemeanour*, is an act committed, or omitted, in violation of a public law either forbidding or commanding it.

(3.) Crimes are distinguished from civil injuries, in that they are a breach and violation of the *public* rights, due to the whole community, considered as a community.

(4.) *Punishments* may be considered with regard to, 1. The *power;* 2. The *end;* 3. The *measure;*—of their infliction.

(5.) The *power*, or right, of inflicting human punishments for *natural* crimes, or such as are *mala in se*, was by the law of nature vested in every individual: but, by the fundamental contract of society, is now transferred to the sovereign power; in which also is vested, by the same contract, the right of punishing *positive* offences, or such as are *mala prohibita*.

(6.) The *end* of human punishments is to prevent future offences; 1. By amending the offender himself. 2. By deterring others through his example. 3. By depriving him of the power to do future mischief.

(7.) The *measure* of human punishments must be determined by the wisdom of the sovereign power, and not

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not by any uniform universal rule: though that wisdom may be regulated, and assisted, by certain general, equitable, principles.

Sect. II. *Of the Persons capable of Committing Crimes.*

cxxiv. (1.) All persons are *capable* of committing crimes, unless there be in them a *defect* of *will:* for, to constitute a legal crime, there must be both a vitious will, and a vitious act.

(2.) The will does not concur with the act, 1. Where there is a defect of *understanding*. 2. Where no will is *exerted*. 3. Where the act is *constrained* by force and violence.

(3.) A vitious will may therefore be wanting, in the cases of, 1. Infancy. 2. Idiocy, or lunacy. 3. Drunkenness; which doth not, however, excuse. 4. Misfortune. 5. Ignorance, or mistake of fact. 6. Compulsion, or necessity; which is, 1st, that of civil subjection; 2dly, that of duress *per minas;* 3dly, that of choosing the least pernicious of two evils, where one is unavoidable; 4thly, that of want, or hunger; which is no legitimate excuse.

(4.) The king, from his excellence and dignity, is also incapable of doing wrong.

Sect. III. *Of Principals and Accessories.*

cxxv. (1.) The different *degrees* of guilt in criminals are, 1. As *principals*. 2. As *accessories*.

(2.) A *principal* in a crime is, 1. He who commits the fact. 2. He who is present at, aiding, and abetting, the commission.

(3.) An *accessory* is he who doth not commit the fact, nor is present at the commission; but is in some sort concerned therein, either *before* or *after*.

(4.) Accessories can only be in petit treason, and felony: in high treason, and misdemeanors, all are principals.

(5.) An accessory, *before* the fact, is one who, being absent when the crime is committed, hath procured, counselled, or commanded, another to commit it.

(6.) An accessory *after* the fact, is where a person, knowing a felony to have been committed, receives, relieves, comforts, or assists, the felon. Such accessory is usually entitled to the benefit of clergy; where the principal, and accessory *before* the fact, are excluded from it.

Sect. IV. *Of Offences against God and Religion.*

cxxvi. (1.) Crimes and misdemeanors cognizable by the laws of England are such as more immediately offend, 1. God, and his holy *religion*. 2. The law of *nations*. 3. The *king*, and his *government*. 4. The *public*, or *Commonwealth*. 5. *Individuals*.

(2.) Crimes more immediately offending God and *religion* are, 1. *Apostacy*. For which the penalty is incapacity, and imprisonment. 2. *Heresy*. Penalty, for one species thereof: the same. 3. Offences against the established *church:*—Either, by *reviling* its ordinances. Penalties: fine; deprivation; imprisonment; forfeiture.—Or, by *nonconformity* to its worship; 1st, Through total *irreligion*. Penalty: fine. 2dly, Through Protestant *dissenting*. Penalty: suspended by the toleration act. 3dly, Through *Popery*, either in professors of the popish religion, popish recusants, convict, or popish priests. Penalties: incapacity; double taxes; imprisonment; fines; forfeitures; abjuration of the realm; judgment of felony, without clergy: and judgment of high treason. 4. *Blasphemy*. Penalty: fine, imprisonment, and corporal punishment. 5. Profane *swearing* and *cursing*. Penalty: fine, or house of correction. 6. *Witchcraft;* or, at least, the pretence thereto. Penalty: imprisonment, and pillory. 7. Religious *impostures*. Penalty: fine, imprisonment, and corporal punishment. 8. *Simony*. Penalties: forfeiture of double value; incapacity. 9. *Sabbath-breaking*. Penalty: fine. 10. *Drunkenness*. Penalty: fine or stocks. 11. *Lewdness*. Penalties: fine; imprisonment; house of correction.

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Sect. V. *Of Offences against the Law of Nations.*

cxxvii. (1.) The *law* of *nations* is a system of rules, deducible by natural reason, and established by universal consent, to regulate the intercourse between independent states.

(2.) In England, the *law* of *nations* is adopted in its full extent, as part of the law of the land.

(3.) Offences against this law are principally incident to whole states or nations; but, when committed by private subjects, are then the objects of the municipal law.

(4.) Crimes against the law of *nations*, animadverted on by the laws of England, are, 1. Violation of *safe conducts*. 2. Infringement of the rights of *embassadors*. Penalty, in both: arbitrary. 3. *Piracy*. Penalty: judgment of felony, without clergy.

Sect. VI. *Of High Treason.*

cxxviii. (1.) Crimes and misdemeanors more peculiarly offending the king and his government are, 1. *High treason*. 2. *Felonies* injurious to the prerogative. 3. *Præmunire*. 4. Other *misprisions* and *contempts*.

(2.) *High treason* may, according to the statute of Edward III. be committed, 1. By *compassing* or *imagining* the death of the king, or queen-consort, or their eldest son and heir: demonstrated by some overt act. 2. By *violating* the king's companion, his eldest daughter, or the wife of his eldest son. 3. By some overt act of *levying war* against the king in his realm. 4. By *adherence* to the king's enemies. 5. By *counterfeiting* the king's great or privy *seal*. 6. By *counterfeiting* the king's *money*, or importing counterfeit money. 7. By *killing* the chancellor, treasurer, or king's justices, in the execution of their offices.

(3.) *High treasons*, created by subsequent statutes, are such as relate, 1. To *Papists:* as, the repeated defence of the pope's jurisdiction; the coming from beyond sea of a natural born popish priest; the renouncing of allegiance, and reconciliation to the pope or other foreign power. 2. To the *coinage*, or other signatures of the king: as, counterfeiting (or, importing and uttering counterfeit) foreign coin, here current; forging the sign-manual, privy signet, or privy seal; falsifying, &c. the current coin. 3. To the *Protestant*

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Protestant succession; as, corresponding with, or remitting to, the late Pretender's sons; endeavouring to impede the succession; writing or printing in defence of any pretender's title, or in derogation of the act of settlement, or of the power of parliament to limit the descent of the crown.

(4.) The *punishment* of high treason, in *males*, is (generally) to be, 1. Drawn. 2. Hanged. 3. Embowelled alive. 4. Beheaded. 5. Quartered. 6. The head and quarters to be at the king's disposal. But, in treasons relating to the coin, only to be drawn, and hanged till dead. *Females*, in both cases, are to be drawn, and burned alive.

SECT. VII. *Of Felonies injurious to the King's Prerogative.*

cxxix. (1.) Felony is that offence which occasions the total forfeiture of lands or goods, at common law; now usually also punishable with death, by hanging; unless through the benefit of clergy.

(2.) *Felonies* injurious to the king's prerogative (of which some are within, others without clergy) are, 1. Such as relate to the *coin*: as, the wilful uttering of counterfeit money, &c.; (to which head some inferior misdemeanors affecting the coinage may be also referred). 2. Conspiring or attempting to kill a *privy counsellor*. 3. Serving *foreign* states, or inlisting soldiers for *foreign* service. 4. Embezzling the king's *armour* or *stores*. 5. *Desertion* from the king's *armies* by land or sea.

SECT. VIII. *Of Præmunire.*

cxxx. (1.) Præmunire, in its original sense, is the offence of adhering to the temporal power of the pope, in derogation of the regal authority. Penalty: outlawry, forfeiture, and imprisonment: which hath since been extended to some offences of a different nature.

(2.) Among these are, 1. Importing Popish trinkets. 2. Contributing to the maintenance of Popish seminaries abroad, or Popish priests in England. 3. Molesting the possessors of abbey lands. 4. Acting as broker in an usurious contract, for more than ten per cent. 5. Obtaining any stay of proceedings in suits for monopolies. 6. Obtaining an exclusive patent for gunpowder or arms. 7. Exertion of purveyance or pre-emption. 8. Asserting a legislative authority in both or either house of parliament. 9. Sending any subject a prisoner beyond sea. 10. Refusing the oaths of allegiance and supremacy. 11. Preaching, teaching, or advised speaking, in defence of the right of any pretender to the crown, or in derogation of the power of parliament to limit the succession. 12. Treating of other matters by the assembly of peers of Scotland, convened for electing their representative in parliament. 13. Unwarrantable undertakings by unlawful subscriptions to public funds.

SECT. IX. *Of Misprisions and Contempts affecting the King and Government.*

cxxxi. (1.) Misprisions and *contempts* are all such high offences as are under the degree of capital.

(2.) These are, 1. *Negative*, in concealing what ought to be revealed. 2. *Positive*, in committing what ought not to be done.

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(2.) *Negative* misprisions are, 1. Misprisions of *treason*. Penalty: forfeiture and imprisonment. 2. Misprision of *felony*. Penalty: fine and imprisonment. 3. Concealment of *treasure-trove*. Penalty: fine and imprisonment.

(4.) *Positive* misprisions, or high misdemeanors and contempts, are, 1. *Mal-administration* of public trusts, which includes the crime of *peculation*. Usual penalties: banishment; fines; imprisonment; disability. 2. Contempts against the king's *prerogative*. Penalty: fine, and imprisonment. 3. Contempt against his *person* and *government*. Penalty: fine, imprisonment, and infamous corporal punishment. 4. Contempts against his *title*. Penalties: fine, and imprisonment; or fine, and disability. 5. Contempts against his *palaces*, or *courts* of justice. Penalties: fine; imprisonment; corporal punishment; loss of right hand; forfeiture.

SECT. X. *Of Offences against Public Justice.*

cxxxii. (1.) Crimes especially affecting the *commonwealth* are offences, 1. Against the public *justice*. 2. Against the public *peace*. 3. Against the public *trade*. 4. Against the public *health*. 5. Against the public *police* or *economy*.

(2.) Offences against the public *justice*, are, 1. *Embezzling* or *vacating* records, and *personating* others in courts of justice. Penalty: judgment of felony, usually without clergy. 2. *Compelling* prisoners to become *approvers*. Penalty: judgment of felony. 3. *Obstructing* the execution of process. 4. *Escapes*. 5. *Breach* of prison. 6. *Rescue*. Which four may (according to the circumstances) be either felonies, or misdemeanors punishable by fine and imprisonment. 7. *Returning* from *transportation*. This is felony, without clergy. 8. Taking *rewards* to *help* one to his stolen goods. Penalty: the same as for the theft. 9. *Receiving* stolen goods. Penalties: transportation; fine; and imprisonment.—10. *Theftbote*. 11. Common *barretry* and suing in a feigned name. 12. *Maintenance*. 13. *Champerty*. Penalty, in these four: fine, and imprisonment. 14. *Compounding* prosecutions on penal statutes. Penalty: fine, pillory, and disability. 15. *Conspiracy;* and threats of accusation in order to extort money, &c. Penalties: the villanous judgment; fine; imprisonment; pillory; whipping, transportation. 16. *Perjury*, and subornation thereof. Penalties: infamy; imprisonment; fine, or pillory; and sometimes, transportation or house of correction. 17. *Bribery*. Penalty: fine and imprisonment. 18. *Embracery*. Penalty: infamy, fine, and imprisonment. 19. *False verdict*. Penalty: the judgment in attaint. 20. *Negligence* of public officers, &c. Penalty: fine, and forfeiture of the office. 21. *Oppression* by magistrates. 22. *Extortion* of officers. Penalty, in both: imprisonment, fine, and sometimes forfeiture of the office.

SECT. XI. *Of Offences against the Public Peace.*

cxxxiii. Offences against the public *peace*, are, 1. *Riotous assemblies* to the number of *twelve*. 2. Appearing armed,

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armed, or hunting in *disguise*. 3. *Threatening*, or *demanding* any valuable thing by letter.—All these are felonies, without clergy. 4. Destroying of *turnpikes*, &c. Penalties: whipping; imprisonment; judgment of felony, with and without clergy. 5. *Affrays*. 6. *Riots*, *routs*, and *unlawful assemblies*. 7. Tumultuous *petitioning*. 8. Forcible *entry*, and *detainer*. Penalty, in all four: fine, and imprisonment. 9. Going unusually *armed*. Penalty: forfeiture of arms, and imprisonment. 10. Spreading *false news*. Penalty: fine and imprisonment. 11. Pretended *prophecies*. Penalties: fine; imprisonment; and forfeiture. 12. *Challenges* to fight. Penalty: fine, imprisonment, and sometimes forfeiture. 13. *Libels*. Penalty: fine, imprisonment, and corporal punishment.

Sect. XII. *Of Offences against Public Trade.*

cxxxiv. Offences against the public *trade*, are, 1. *Owling*. Penalties: fine; forfeiture; imprisonment; loss of left hand; transportation; judgment of felony. 2. *Smuggling*. Penalties: fines; loss of goods; judgment of felony, without clergy. 3. *Fraudulent bankruptcy*. Penalty: judgment of felony without clergy. 4. *Usury*. Penalty: fine, and imprisonment. 5. *Cheating*. Penalties: fine; imprisonment; pillory; tumbrel, whipping, or other corporal punishment, transportation. 6. *Forestalling*. 7. *Regrating*. 8. *Engrossing*. Penalties, for all three: loss of goods; fine; imprisonment; pillory. 9. *Monopolies* and *combinations* to raise the price of commodities. Penalties: fines; imprisonment; pillory; loss of ear; infamy; and, sometimes the pains of *præmunire*. 10. Exercising a *trade*, not having served as an apprentice. Penalty: fine. 11. Transporting, or residing abroad of *artificers*. Penalties: fine; imprisonment; forfeiture; incapacity; becoming aliens.

Sect. XIII. *Of Offences against the Public Health, and Public Police or Economy.*

cxxxv. (1.) Offences against the public *health*, are, 1. *Irregularity*, in the time of the *plague*, or of *quarantine*. Penalties: whipping; judgment of felony, with and without clergy. 2. Selling *unwholesome provisions*. Penalties: amercement; pillory; fine; imprisonment; abjuration of the town.

(2.) Offences against the public *police* and *economy*, or domestic order of the kingdom, are, 1. Those relating to *clandestine* and *irregular marriages*. Penalties: judgment of felony, with and without clergy. 2. *Bigamy*, or (more properly) *polygamy*. Penalty: judgment of felony. 3. *Wandering*, by *soldiers* or *mariners*. 4. *Remaining* in England, by *Egyptians*; or being in their *fellowship* one month. Both these are felonies, without clergy. 5. *Common nuisances*, 1st, By annoyances or purprestures in highways, bridges, and rivers; 2dly, By offensive trades and manufactures; 3dly, By disorderly houses; 4thly, By lotteries; 5thly, By cottages; 6thly, By fireworks; 7thly, By evesdropping. Penalty: in all fine. 8thly, By common scolding. Penalty: the cucking stool. 6. *Idleness*, *disorder*, *vagrancy*, and *incorrigible roguery*. Penalties: imprisonment; whipping; judgment of felony. 7. *Luxury*, in diet. Penalty, discretionary. 8. *Gaming*. Penalties: to gentlemen, fine; to others, fine and imprisonment; to cheating gamesters, fine, infamy, and the corporal pains of perjury. 9. *Destroying* the *game*. Penalties: fines, and corporal punishment.

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Sect. XIV. *Of Homicide.*

(1.) Crimes especially affecting *individuals*, are, 1. Against their *persons*. 2. Against their *habitations*. 3. Against their *property*.

(2.) Crimes against the *persons* of individuals, are, cxxxvi. 1. By *homicide*, or destroying life. 2. By other *corporal* injuries.

(3.) *Homicide* is, 1. *Justifiable*. 2. *Excusable*. 3. *Felonious*.

(4.) Homicide is *justifiable*. 1. By necessity, and command of law. 2. By permission of law; 1st, For the furtherance of public justice; 2dly, For prevention of some forcible felony.

(5.) Homicide is *excusable*, 1. *Per infortunium*, or by misadventnre. 2. *Se defendendo*, or in self-defence, by chance-medley. Penalty, in both: forfeiture of goods; which however is pardoned of course.

(6.) *Felonious* homicide is the killing of a human creature without justification or excuse. This is, 1. Killing *one's self*. 2. Killing *another*.

(7.) Killing *one's self*, or *self-murder*, is where one deliberately, or by any unlawful malicious act, puts an end to his own life. This is felony; punished by ignominious burial, and forfeiture of goods and chattels.

(8.) Killing *another* is, 1. *Manslaughter*. 2. *Murder*.

(9.) *Manslaughter* is the unlawful killing of another, without malice, express or implied. This is either, 1. Voluntary, upon a sudden heat. 2. Involuntary, in the commission of some unlawful act. Both are felony, but within clergy; except in the case of *stabbing*.

(10.) *Murder* is when a person, of sound memory and discretion, unlawfully killeth any reasonable creature, in being, and under the king's peace; with malice aforethought, either express or implied. This is felony, without clergy; punished with speedy death, and hanging in chains or dissection.

(11.) *Petit treason* (being an aggravated degree of *murder*) is where the servant kills his master, the wife her husband, or the ecclesiastic his superior. Penalty: in men, to be drawn and hanged; in women, to be drawn and burned.

Sect. XV. *Of Offences against the Persons of Individuals.*

Crimes affecting the *persons* of individuals, by other cxxxvii. corporal injuries not amounting to homicide, are, 1. *Mayhem*; and also *shooting* at another. Penalties: fine; imprisonment; judgment of felony, without clergy. 2. Forcible *abduction*, and *marriage* or *defilement*, of an heiress; which is felony: also, *stealing*, and *deflowering* or *marrying*, any woman child under the age of *sixteen* years; for which the penalty is imprisonment, fine, and temporary forfeiture of her lands. 3. *Rape*, and also *carnal knowledge*, of a woman child under the age of *ten* years. 4. *Buggery*, with man or beast. Both these are felonies, without clergy. 5. *Assault*. 6. *Battery*; especially of clergymen. 7. *Wounding*. Penalties, in all three: fine; imprisonment; and other cor-

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poral punishment. 8. *False imprisonment.* Penalties: fine; imprisonment; and (in some atrocious cases) the pains of *præmunire*, and incapacity of office or pardon. 9. *Kidnapping*, or forcibly stealing away the king's subjects. Penalty: fine; imprisonment; and pillory.

Sect. XVI. *Of Offences against the Habitations of Individuals.*

cxxxviii. (1.) Crimes, affecting the *habitations* of individuals are, 1. *Arson.* 2. *Burglary.*

(2.) *Arson* is the malicious and wilful burning of the house, or out-house, of another man. This is felony: in some cases within, in others without, clergy.

(3.) *Burglary* is the breaking and entering, by night, into a mansion house: with intent to commit a felony. This is felony, without clergy.

Sect. XVII. *Of Offences against Private Property.*

cxxxix. (1.) Crimes affecting the private *property* of individuals are, 1. *Larciny.* 2. Malicious *mischief.* 3. *Forgery.*

(2.) *Larciny* is, 1. *Simple.* 2. *Mixed* or *compound.*

(3.) *Simple* larciny is the felonious taking, and carrying away, of the personal goods of another. And it is, 1. *Grand* larciny; being above the value of twelvepence. Which is felony; in some cases within, in others without, clergy. 2. *Petit* larciny; to the value of twelvepence or under. Which is also felony, but not capital; being punished with whipping, or transportation.

(4.) *Mixed*, or *compound*, larciny, is that wherein the taking is accompanied with the aggravation of being, 1. From the *house.* 2. From the *person.*

(5.) Larcinies from the *house*, by day or night, are felonies without clergy, when they are, 1. Larcinies, above *twelvepence*, from a church; or by breaking a tent or booth in a market or fair, by day or night, the owner or his family being therein;—or by breaking a dwelling house by day, any person being therein;—or from a dwelling house by day, without breaking, any person therein being put in fear;—or from a dwelling house by night, without breaking, the owner, or his family being therein and put in fear. 2. Larcinies, of *five shillings*, by breaking the dwelling house, shop, or warehouse by day, though no person be therein;—or, by private stealing in any shop, warehouse, coach-house, or stable, by day or night, without breaking, and though no person be therein. 3. Larcinies, of *forty shillings*, from a dwelling house or its out-houses, without breaking, and though no person be therein.

(6.) Larciny from the *person* is, 1. By *privately sterling*, from the person of another, above the value of twelvepence. 2. By *robbery*; or the felonious and forcible taking, from the person of another, in or near the highway, goods or money of any value, by putting him in fear. These are both felonies without clergy. An attempt to rob is also felony.

(7.) Malicious *mischief*, by destroying dykes, goods, cattle, ships, garments, fish ponds, trees, woods, churches, chapels, meeting-houses, houses, out-houses, corn, hay, straw, sea or river banks, hop-binds, coal-mines (or engines thereunto belonging), or any fences for enclosures by act of parliament, is felony; and, in most cases, without benefit of clergy.

(8.) *Forgery* is the fraudulent making or alteration of a writing, in prejudice of another's right. Penalties: fine; imprisonment; pillory; loss of nose and ears; forfeiture; judgment of felony, without clergy.

Sect. XVIII. *Of the Means of Preventing Offences.*

(1.) Crimes and misdemeanors may be *prevented*, cxl. by compelling suspected persons to give *security*: which is effected by binding them in a conditional recognizance to the king, taken in court, or by a magistrate.

(2.) These recognizances may be conditioned, 1. To keep the *peace.* 2. To be of *good behaviour.*

(3.) These may be taken by any justice or conservator of the peace, at his own discretion; or, at the request of such as are entitled to demand the same.

(4.) All persons, who have given sufficient cause to apprehend an intended breach of the peace, may be bound over to keep the *peace*; and all those, that be not of good fame, may be bound to the *good behaviour*; and may, upon refusal in either case, be committed to gaol.

Sect. XIX. *Of Courts of Criminal Jurisdiction.*

(1.) In the method of *punishment* may be consider- cxli ed, 1. The several *courts* of criminal jurisdiction. 2. The several *proceedings* therein.

(2.) The criminal *courts* are, 1. Those of a *public* and general jurisdiction throughout the realm. 2. Those of a *private* and special jurisdiction.

(3.) *Public* criminal courts are, 1. The high court of parliament; which proceeds by impeachment. 2. The court of the lord high steward; and the court of the king in full parliament: for the trial of capitally indicted peers. 3. The court of king's bench. 4. The court of chivalry. 5. The court of admiralty, under the king's commission. 6. The courts of oyer and terminer, and general gaol delivery. 7. The court of quarter sessions of the peace. 8. The sheriff's tourn. 9. The court left. 10. The court of the coroner. 11. The court of the clerk of the market.

(4.) *Private* criminal courts are, 1. The court of the lord steward, &c. by statute of Henry VII. 2. The court of the lord steward, &c. by statute of Henry VIII. 3. The university courts.

Sect. XX. *Of Summary Convictions.*

(1.) Proceedings in criminal courts are, 1. *Summary.* cxlii. 2. *Regular.*

(2.) *Summary* proceedings are such, whereby a man may be convicted of divers offences, without any formal process or jury, at the discretion of the judge or judges appointed by act of parliament, or common law.

(3.) Such are, 1. Trials of offences and frauds against the laws of *excise* and other branches of the king's *revenue.* 2. Convictions before *justices* of the *peace* upon a variety of minute offences, chiefly against the

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the public police. 3. *Attachments* for contempts to the superior courts of justice.

Sect. XXI. *Of Arrests.*

cxlii. (1.) Regular proceedings in the courts of common law, are, 1. *Arrest.* 2. *Commitment* and *bail.* 3. *Prosecution.* 4. *Process.* 5. *Arraignment*, and its incidents. 6. *Plea* and *issue.* 7. *Trial* and *conviction.* 8. *Clergy.* 9. *Judgment*, and its consequences. 10. *Reversal* of judgment. 11. *Reprieve* or *pardon.* 12. *Execution.*

(2.) An *arrest* is the apprehending, or restraining, of one's person; in order to be forthcoming to answer a crime whereof one is accused or suspected.

(3.) This may be done, 1. By warrant. 2. By an officer, without warrant. 3. By a private person, without warrant. 4. By hue and cry.

Sect. XXII. *Of Commitment and Bail.*

cxliv. (1.) Commitment is the confinement of one's person in prison, for safe custody, by warrant from proper authority; unless, in bailable offences, he puts in sufficient *bail*, or security for his future appearance.

(2.) The magistrate is bound to take reasonable bail, if offered; unless the offender be not bailable.

(3.) Such are, 1. Persons accused of treason; or, 2. Of murder; or, 3. Of manslaughter, by indictment; or if the prisoner was clearly the slayer. 4. Prison breakers, when committed for felony. 5. Outlaws. 6. Those who have abjured the realm. 7. Approvers, and appellees. 8. Persons taken with the mainour. 9. Persons accused of arson. 10. Excommunicated persons.

(4.) The magistrate may, at his discretion, admit to bail, or otherwise, persons not of good fame, charged with other felonies, whether as principals or as accessories.

(5.) If they be of good fame, he is bound to admit them to bail.

(6.) The court of king's bench, or its judges in time of vacation, may bail in any case whatsoever.

Sect. XXIII. *Of the Several Modes of Prosecution.*

cxlv. (1.) Prosecution, or the manner of accusing offenders, is either by a previous finding of a grand jury; as, 1. By *presentment.* 2. By *indictment.* Or, without such finding. 3. By *information.* 4. By *appeal.*

(2.) A *presentment* is the notice taken by a grand jury of any offence, from their own knowledge or observation.

(3.) An *indictment* is a written accusation of one or more persons of a crime or misdemeanor, preferred to, and presented on oath by, a grand jury; expressing, with sufficient certainty, the person, time, place, and offence.

(4.) And *information* is, 1. At the suit of the king and a subject, upon penal statutes. 2. At the suit of the king only. Either, 1. Filed by the attorney general *ex officio*, for such misdemeanors as affect the king's person or government: or, 2. Filed by the master of the crown office (with leave of the court of king's bench) at the relation of some private subject for other gross and notorious misdemeanors. All differing from indictments in this, that they are exhibited by the informer, or the king's officer; and not on the oath of a grand jury.

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(5.) An *appeal* is an accusation or suit, brought by one private subject against another, for larciny, rape, mayhem, arson, or homicide: which the king cannot discharge or pardon, but the party alone can release.

Sect. XXIV. *Of Process upon an Indictment.*

cxlvi. (1.) Process to bring in an offender, when indicted in his absence, is, in misdemeanors, by *venire facias*, distress infinite, and *capias:* in capital crimes, by *capias* only: and, in both, by outlawry.

(2.) During this stage of proceedings, the indictment may be removed into the court of king's bench from any inferior jurisdiction, by writ of *certiorari facias:* and cognizance must be claimed in places of exclusive jurisdiction.

Sect. XXV. *Of Arraignment, and its Incidents.*

cxlvii. (1.) Arraignment is the calling of the prisoner to the bar of the court, to answer the matter of the indictment.

(2.) Incident hereunto are, 1. The standing mute of the prisoner: for which, in petit treason, and felonies of death, he shall undergo the *peine fort et dure.* 2. His confession; which is either *simple*, or by way of *approvement.*

Sect. XXVI. *Of Plea, and its Issue.*

cxlviii. (1.) The *plea*, or defensive matter alleged by the prisoner, may be, 1. A plea to the jurisdiction. 2. A demurrer in point of law. 3. A plea in abatement. 4. A special plea in bar; which is, 1st, *Autrefoits acquit;* 2dly, *Autrefoits convict;* 3dly, *Autrefoits attaint;* 4thly, A pardon. 5. The general issue, not guilty.

(2.) Hereupon *issue* is joined by the clerk of the arraigns, on behalf of the king.

Sect. XXVII. *Of Trial, and Conviction.*

cxlix. (1.) Trials of offence, by the laws of England, were and are, 1. By *ordeal*, of either fire or water. 2. By the *corsned.* Both these have been long abolished. 3. By *battel*, in appeals and improvements. 4. By the *peers* of Great Britain. 5. By *jury.*

(2.) The method and process of trial by *jury* is, 1. The impannelling of the jury. 2. Challenges; 1st, for cause; 2dly, peremptory. 3. *Tales de circumstantibus.* 4. The oath of the jury. 5. The evidence. 6. The verdict, either general or special.

(3.) *Conviction* is when the prisoner pleads, or is found guilty: whereupon, in felonies, the prosecutor is entitled to, 1. His expences. 2. Restitution of his goods.

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Sect. XXVIII. *Of the Benefit of Clergy.*

cl. (1.) Clergy, or the benefit thereof, was originally derived from the usurped jurisdiction of the Popish ecclesiastics; but hath since been new-modelled by several statutes.

(2.) It is an exemption of the clergy from any other secular punishment for felony, than imprisonment for a year, at the court's discretion; and it is extended likewise, absolutely, to lay peers, for the first offence; and to all lay-commoners, for the first offence also, upon condition of branding, imprisonment, or transportation.

(3.) All felonies are entitled to the benefit of clergy, except such as are now ousted by particular statutes.

(4.) Felons, on receiving the benefit of clergy, (though they forfeit their goods to the crown), are discharged of all clergyable felonies before committed, and restored in all capacities and credits.

Sect. XXIX. *Of Judgment, and its Consequences.*

cli. (1.) Judgment (unless any matter be offered in arrest thereof) follows upon conviction; being the pronouncing of that punishment which is expressly ordained by law.

(2.) *Attainder* of a criminal is the immediate consequence, 1. Of having judgment of death pronounced upon him. 2. Of outlawry for a capital offence.

(3.) The consequences of attainder are, 1. *Forfeiture* to the king. 2. *Corruption of blood.*

(4.) *Forfeiture* to the king is, 1. Of real estates, upon attainder;—in high treason, absolutely, till the death of the late Pretender's sons;—in felonies, for the king's year, day, and waste;—in misprision of treason, assaults on a judge, or battery sitting the courts; during the life of the offender. 2. Of personal estates, upon conviction; in all treason, misprision of treason, felony, excusable homicide, petit larceny, standing mute upon arraignment, the above-named contempts of the king's courts, and flight.

(5.) *Corruption* of *blood* is an utter extinction of all inheritable quality therein: so that, after the king's forfeiture is first satisfied, the criminal's lands escheat to the lord of the fee; and he can never afterwards inherit, be inherited, or have any inheritance derived through him.

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Sect. XXX. *Of Reversal of Judgment.*

clii. (1.) Judgments, and their consequences, may be *avoided*, 1. By *falsifying*, or *reversing*, the attainder. 2. By *reprieve*, or *pardon.*

(2.) Attainders may be *falsified*, or *reversed*, 1. Without a writ of error; for matter *dehors* the record. 2. By writ of error; for mistakes in the judgment, or record. 3. By act of parliament; for favour.

(3.) When an *outlawry* is reversed, the party is restored to the same plight as if he had appeared upon the *capias.* When a *judgment*, on conviction, is reversed, the party stands as if never accused.

Sect. XXXI. *Of Reprieve, and Pardon.*

cliii. (1.) A reprieve is a temporary suspension of the judgment, 1. *Ex arbitrio judicis.* 2. *Ex necessitate legis;* for pregnancy, insanity, or the trial of identity of person, which must always be tried *instanter.*

(2.) A pardon is a permanent avoider of the judgement by the king's majesty, in offences against his crown and dignity; drawn in due form of law, allowed in open court, and thereby making the offender a new man.

(3.) The king cannot pardon, 1. Imprisonment of the subject beyond the seas. 2. Offences prosecuted by appeal. 3. Common nuisances. 4. Offences against popular or penal statutes, after information brought by a subject. Nor is his pardon pleadable to an impeachment by the commons in parliament.

Sect. XXXII. *Of Execution.*

cliv. (1.) Execution is the completion of human punishment, and must be strictly performed in the manner which the law directs.

(2.) The warrant for execution is sometimes under the hand and seal of the judge; sometimes by writ from the king; sometimes by rule of court; but commonly by the judges signing the calendar of prisoners, with their separate judgments in the margin.

PART III. THE LAW OF SCOTLAND.

GENERAL OBSERVATIONS.

clv. Municipal law. 1. THE municipal law of Scotland, as of most other countries, consists partly of statutory or written law, which has the express authority of the legislative power; partly of customary or unwritten law, which derives force from its presumed or tacit consent.

Statutory law. Acts of parliament. 2. Under our statutory or written law is comprehended, (1.) Our acts of parliament: not only those which were made in the reign of James I. of Scotland, and from thence down to our union with England in 1707, but such of the British statutes enacted since the Union as concerned this part of the united kingdom.

Regiam Majestatem. 3. The remains of our ancient written law were published by Sir John Skene, clerk register, in the beginning of the last century, by license of parliament. The books of *Regiam Majestatem*, to which the whole collection owes its title, seem to be a system of Scots law, written by a private lawyer at the command of David I.; and though no express confirmation of that treatise by the legislature appears, yet it is admitted to have been the ancient law of our kingdom by express statutes. The borough laws, which were also enacted by the same King David, and the statutes of William, Alexander II. David II. and the three Roberts, are universally allowed to be genuine. Our parliaments have once and again appointed commissions to revise and amend

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amend the *Regiam Majestatem*, and the other ancient books of our law, and to make their report: but as no report appears to have been made, nor consequently any ratification by parliament, none of these remains are received, as of proper authority, in our courts; yet they are of excellent use in proving and illustrating our most ancient customs.

Acts of sederunt.

4. Our written law comprehends, (2.) The acts of sederunt, which are ordinances for regulating the forms of proceeding before the court of session in the administration of justice, made by the judges, who have a delegated power from the legislature for that purpose. Some of these acts dip upon matter of right, which declare what the judges apprehend to be the law of Scotland, and what they are to observe afterwards as a rule of judgment.

Authority of the civil and canon laws.

5. The civil, or Roman and canon laws, though they are not perhaps to be deemed proper parts of our written law, have undoubtedly had the greatest influence in Scotland. The powers exercised by our sovereigns and judges have been justified upon no other ground, than that they were conformable to the civil or canon laws; and a special statute was judged necessary, upon the Reformation, to rescind such of their constitutions as were repugnant to the Protestant doctrine. From that period, the canon law has been little respected, except in questions of tithes, patronages, and some few more articles of ecclesiastical right: but the Roman continues to have great authority in all cases where it is not derogated from by statute or custom, and where the genius of our law suffers us to apply it.

Customary or common law.

6. Our unwritten or customary law, is that which without being expressly enacted by statute, derives its force from the tacit consent of king and people; which consent is presumed from the ancient custom of the community. Custom, as it is equally founded in the will of the lawgiver with written law, has therefore the same effects: hence, as one statute may be explained or repealed by another, so a statute may be explained by the uniform practice of the community, and even go into disuse by a posterior contrary custom. But this power of custom to derogate from prior statutes is generally confined by lawyers to statutes concerning private right, and does not extend to those which regard public policy.

Decisions of the session.

7. An uniform tract of the judgments or decisions of the court of session is commonly considered as part of our customary law; and without doubt, where a particular custom is thereby fixed or proved, such custom of itself constitutes law: but decisions, though they bind the parties litigating, have not, in their own nature, the authority of law in similar cases; yet, where they continue uniform, great weight is justly laid on them. Neither can the judgments of the house of peers of Great Britain reach farther than to the parties in the appeal, since in these the peers act as judges, not as lawgivers.

Judgments of the house of peers.

Promulgation of laws

8. Though the laws of nature are sufficiently published by the internal suggestion of natural light, civil laws cannot be considered as a rule for the conduct of life, till they are notified to those whose conduct they are to regulate. The *Scots* acts of parliament were, by our most ancient custom, proclaimed in all the different shires, boroughs, and baron courts, of the kingdom. But after our statutes came to be printed, that custom was gradually neglected; and at last the publication of our laws, at the market-cross of Edinburgh, was declared sufficient; and they became obligatory 40 days thereafter. British statutes are deemed sufficiently notified, without formal promulgation; either because the printing is truly a publication; or because every subject is, by a maxim of the English law, party to them, as being present in parliament either by himself or his representative. After a law is published, no pretence of ignorance can excuse the breach of it.

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9. As laws are given for the rule of our conduct, they can regulate future cases only; for past actions, being out of our power, can admit of no rule. Declaratory laws form no exception to this; for a statute, where it is declaratory of a former law, does no more than interpret its meaning; and it is included in the notion of interpretation, that it must draw back to the date of the law interpreted.

Interpretation of laws.

10. By the rules of interpreting statute law received in Scotland, an argument may be used from the title to the act itself, *à rubro ad nigrum*; at least, where the rubric has either been originally framed, or afterwards adopted by the legislature. The preamble or narrative, which recites the inconveniences that had arisen from the former law; and the causes inducing the enactment, may also lead a judge to the general meaning of the statute. But the chief weight is to be laid on the statutory words.

11. Laws, being directed to the unlearned as well as the learned, ought to be construed in their most obvious meaning, and not explained away by subtle distinctions; and no law is to suffer a figurative interpretation, where the proper sense of the words is as commodious, and equally fitted to the subject of the statute. Laws ought to be explained so as to exclude absurdities, and in the sense which appears most agreeable to former laws, to the intention of the lawgiver, and to the general frame and structure of the constitution. In prohibitory laws, where the right of acting is taken from a person, solely for the private advantage of another, the consent of him, in whose behalf the law was made, shall support the act done in breach of it; but the consent of parties immediately interested has no effect in matters which regard the public utility of a state. Where the words of a statute are capable but of one meaning, the statute must be observed, however hard it may bear on particular persons. Nevertheless, as no human system of laws can comprehend all possible cases, more may sometimes be meant by the lawgiver than is expressed; and hence certain statutes, where extension is not plainly excluded, may be extended beyond the letter, to similar and omitted cases: others are to be confined to the statutory words.

Strict

12. A strict interpretation is to be applied, (1.) To corrective statutes, which repeal or restrict former laws; and to statutes which enact heavy penalties, or restrain the natural liberties of mankind. (2.) Laws, made on occasion of present exigencies in a state, ought not to be drawn to similar cases, after the pressure is over. (3.) Where statutes establish certain solemnities as requisite to deeds, such solemnities are not suppliable by equivalents; for solemnities lose their nature, when they are not performed specifically. (4.) A statute, which enumerates special cases, is, with difficulty, to be extended

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tended to cases not expressed; but, where a law does not descend to particulars, there is greater reason to extend it to similar cases. (5.) Statutes, which carry a dispensation or privilege to particular persons or societies, suffer a strict interpretation; because they derogate from the general law, and imply a burden upon the rest of the community. But at no rate can a privilege be explained to the prejudice of those in whose behalf it was granted. As the only foundation of customary law is usage, which consists in fact, such law can go no farther than the particular usage has gone.

Ample.

13. All statutes, concerning matters specially favoured by law, receive an ample interpretation; as laws for the encouragement of commerce, or of any useful public undertaking, for making effectual the wills of dying persons, for restraining fraud, for the security of creditors, &c. A statute, though its subject matter should not be a favourite of the law, may be extended to similar cases, which did not exist when the statute was made; and for which, therefore, it was not in the lawgiver's power to provide.

14. Every statute, however unfavourable, must receive the interpretation necessary to give it effect: and, on the other hand, in the extension of favourable laws, scope must not be given to the imagination, in discovering remote resemblances; the extension must be limited to the cases immediately similar. Where there is ground to conclude that the legislature has omitted a case out of the statute purposely, the statute cannot be extended to that case, let it be ever so similar to the cases expressed.

15. The objects of the laws of Scotland, according to Mr Erskine, one of the latest writers on the subject are, Persons, Things, and Actions.

Chap. I. *Of* Persons.

Among persons, judges, who are invested with jurisdiction, deserve the first consideration.

Sect. I. *Of Jurisdiction and Judges in General.*

Civil Jurisdiction.

Jurisdiction is a power conferred upon a judge or magistrate, to take cognizance of and decide causes according to law, and to carry his sentences into execution. That tract of ground, or district, within which a judge has the right of jurisdiction, is called his *territory:* and every act of jurisdiction exercised by a judge without his territory, either by pronouncing sentence, or carrying it into execution, is null.

King the fountain of jurisdiction.

2. The supreme power, which has the right of enacting laws, falls naturally to have the right of erecting courts, and appointing judges, who may apply these laws to particular cases: but, in Scotland this right has been always intrusted with the crown, as having the executive power of the state.

Distinctions of jurisdiction.

3. Jurisdiction is either supreme, inferior, or mixed. That jurisdiction is supreme, from which there lies no appeal to a higher court. Inferior courts are those whose sentences are subject to the review of the supreme courts, and whose jurisdiction is confined to a particular territory. Mixed jurisdiction participates of the nature both of the supreme and inferior: thus the judge of the high court of admiralty, and the commissaries of Edinburgh, have an universal jurisdiction over Scotland, and they can review the decrees of inferior admirals and commissaries: but since their own decrees are subject to the review of the courts of session or justiciary, they are, in that respect, inferior courts.

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5. Jurisdiction is either civil or criminal: by the first, questions of private right are decided; by the other, crimes are punished. But, in all jurisdiction, though merely civil, there is a power inherent in the judge to punish either corporally, or by a pecuniary fine, those who offend during the proceedings of the court, or who shall afterwards obstruct the execution of the sentence.

5. Jurisdiction is either private or cumulative. Private jurisdiction, is that which belongs only to one court, to the exclusion of all others. Cumulative, otherwise called *concurrent*, is that which may be exercised by any one of two or more courts, in the same cause. In civil cumulative jurisdiction, the private pursuer has the right of election before which of the courts he shall sue; but as, in criminal questions which are prosecuted by a public officer of court, a collision of jurisdiction might happen, through each of the judges claiming the exercise of their right, that judge, by whose warrant the delinquent is first cited or apprehended (which is the first step of jurisdiction), acquires thereby (*jure præventionis*) the exclusive right of judging the cause.

6. All rights of jurisdiction, being originally granted in consideration of the fitness of the grantee, were therefore personal, and died with himself. But, upon the introduction of the feudal system, certain jurisdictions were annexed to lands, and descended to heirs, as well as the lands to which they were annexed; but now all heritable jurisdictions, except those of admiralty and a small pittance reserved to barons, are either abolished, or resumed and annexed to the crown.

7. Jurisdiction is either proper or delegated. Proper jurisdiction, is that which belongs to a judge or magistrate himself, in virtue of his office. Delegated, is that which is communicated by the judge to another who acts in his name, called a *depute* or *deputy*. Where a deputy appoints one under him, he is called *substitute*. No grant of jurisdiction, which is an office requiring personal qualifications, can be delegated by the grantee to another, without an express power in the grant.

Civil jurisdiction, wherein founded.

8. Civil jurisdiction is founded, 1. *Ratione domicilii*, if the defender has his domicile within the judge's territory. A domicile is the dwelling place where a person lives with an intention to remain; and custom has fixed it as a rule, that residence for 40 days founds jurisdiction. If one has no fixed dwelling place, e. g. a soldier, or a travelling merchant, a personal citation against him within the territory is sufficient to found the judge's jurisdiction over him, even in civil questions. As the defender is not obliged to appear before a court to which he is not subject, the pursuer must follow the defender's domicile.

9. It is founded, 2. *Ratione res sitæ*, if the subject in question lie within the territory. If that subject be immoveable, the judge, whose jurisdiction is founded in this way, is the sole judge competent, excluding the judge of the domicile.

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Letters of supplement.

10. Where one, who has not his domicile within the territory, is to be sued before an inferior court, *ratione rei sitæ*, the court of session must be applied to, whose jurisdiction is universal, and who, of course, grants letters of supplement to cite the defender to appear before the inferior judge. Where the party to be sued resides in another kingdom, and has an estate in this, the court of session is the only proper court, as the *commune forum* to all persons residing abroad; and the defender, if his estate be heritable, is considered as lawfully summoned to that court, by a citation at the market cross of Edinburgh, and pier and shore of Leith: but where a stranger, not a native of Scotland, has only a moveable estate in this kingdom, he is deemed to be so little subject to the jurisdiction of our courts, that action cannot be brought against him till his effects be first attached by an arrestment *jurisdictionis fundandæ causa*; which is laid on by a warrant issuing from the supreme courts of session, or admiralty, or from that within whose territory the subject is situated, at the suit of the creditor.

Arrestment of strangers.

11. A judge may, in special cases, arrest or secure the persons of such as have neither domicile nor estate within his territory, even for civil debts. Thus, on the border between Scotland and England, warrants are granted of course by the judge-ordinary of either side, against those who have their domicile upon the opposite side, for arresting their persons, till they give caution *judicio sisti*; and even the persons of citizens or natives may be so secured, where there is just reason to suspect that they are *in meditatione fugæ*, i. e. that they intend suddenly to withdraw from the kingdom; upon which suspicion, the creditor who applies for the warrant must make oath. An inhabitant of a borough-royal, who has furnished one who lives without the borough in meat, clothes, or other merchandise, and who has no security for it but his own account book, may arrest his debtor, till he give security *judicio sisti*.

Grounds of declinature.

12. A judge may be declined, i. e. his jurisdiction disowned judicially, 1. *Ratione causæ*, from his incompetency to the special cause brought before him. 2. *Ratione suspecti judicis*; where either the judge himself, or his near kinsman, has an interest in the suit. No judge can vote in the cause of his father, brother, or son, either by consanguinity or affinity; nor in the cause of his uncle or nephew by consanguinity. 3. *Ratione privilegii*; where the party is by privilege exempted from their jurisdiction.

Prorogated jurisdiction.

13. Prorogated jurisdiction (*jurisdictio in consentientes*) is that which is, by the consent of parties, conferred upon a judge, who, without such consent, would be incompetent. Where a judge is incompetent, every step he takes must be null, till his jurisdiction be made competent by the party's actual submission to it. It is otherwise where the judge is competent, but may be declined by the party upon privilege.

14. In order to prorogation, the judge must have jurisdiction, such as may be prorogated. Hence, prorogation cannot be admitted where the judge's jurisdiction is excluded by statute. Yet where the cause is of the same nature with those to which the judge is competent, though law may have confined his jurisdiction within a certain sum, parties may prorogate it above that sum unless where prorogation is prohibited. Prorogation is not admitted in the king's causes; for the interest of the crown cannot be hurt by the negligence of its officers.

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Oaths of judges.

15. All judges must at their admission swear, 1. The oath of allegiance, and subscribe the assurance; 2. The oath of abjuration; 3. The oath of supremacy; lastly, The oath *de fideli administratione*.

Letters of advocation.

16. A party who has either properly declined the jurisdiction of the judge before whom he had been cited, or who thinks himself aggrieved by any proceedings in the cause, may, before decree, apply to the court of session to issue letters of advocation for calling the action from before the inferior court to themselves. The grounds, therefore, upon which a party may pray for letters of advocation, are incompetency and iniquity. Under incompetency, is comprehended not only defect of jurisdiction, but all the grounds of declining a jurisdiction, in itself competent, arising either from suspicion of the judge, or privilege in the parties. A judge is said to commit iniquity, when he either delays justice, or pronounces sentence, in the exercise of his jurisdiction, contrary to law.

Advocation how limited.

17. That the court of session may not waste their time in trifles, no cause for a sum below twelve pounds sterling can be advocated to the court of session from the inferior judge competent: but if an inferior judge shall proceed upon a cause to which he is incompetent, the cause may be carried from him by advocation, let the subject be ever so inconsiderable.

Sect. II. *Of the Supreme Judges and Courts of Scotland.*

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King.

1. The king, who is the fountain of jurisdiction, might by our constitution have judged in all causes, either in his own person, or by those whom he was pleased to vest with jurisdiction.

and Parliament.

2. The parliament of Scotland, as our court of the last resort, had the right of reviewing the sentences of all our supreme courts.

Parliament of Great Britain.

3. By the treaty of Union, 1707, the parliaments of Scotland and England are united into one parliament of Great Britain. From this period, the British house of peers, as coming in place of the Scots parliament, is become our court of the last resort, to which appeals lie from all the supreme courts of Scotland: but that court has no original jurisdiction in civil matters, in which they judge only upon appeal. By *art.* 22. of that treaty, the Scots share of the representation in the house of peers is fixed to 16 Scots peers elective; and in the house of commons, to 45 commoners, of which 30 are elected by the freeholders of counties, and 15 by the royal boroughs. The Scots privy council was also thereupon abolished, and sunk into that of Great Britain, which for the future is declared to have no other powers than the English privy council had at the time of the union.

Court of session.

4. A court was erected in 1425, consisting of certain persons to be named by the king, out of the three estates of parliament, which was vested with the jurisdiction formerly lodged in the council, and got the name of the *session*, because it was ordained to hold annually a certain number of sessions at the places to be specially appointed by the king. This court had a jurisdiction, cumulative with the judge ordinary, in spuilzies, and other possessory actions, and in debts; but

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but they had no cognizance in questions of property of heritable subjects. No appeal lay from its judgments to the parliament. The judges of this court served by rotation, and were changed from time to time, after having sat 40 days; and became so negligent in the administration of justice, that it was at last thought necessary to transfer the jurisdiction of this court to a council to be named by the king, called the *daily council*.

College of justice.

5. The present model of the court of session, or college of justice, was formed in the reign of James V. The judges, thereof, who were vested with an universal civil jurisdiction, consisted originally of seven churchmen, seven laymen, and a president, whom it behoved to be a prelate; but spiritual judges were in 1584 partly, and in 1640 totally, prohibited. The judges of session have been always received by warrants from the crown. Anciently his majesty seems to have transferred to the court itself the right of choosing their own president; and in a sederunt recorded June 26. 1593, the king condescended to present to the lords, upon every vacancy in the bench, a list of three persons, out of which they were to choose one. But his majesty soon resumed the exercise of both rights, which continued with the crown till the usurpation; when it was ordained that the king should name the judges of the session, by the advice of parliament. After the Restoration, the nomination was again declared to be solely in the sovereign.

Judges, by whom named.

Their qualifications and trial.

6. Though judges may, in the general case, be named at the age of 21 years, the lords of session must be at least 25. No person can be named lord of session, who has not served as an advocate or principal clerk of session for five years, or as a writer to the signet for ten: and in the case of a writer to the signet, he must undergo the ordinary trials upon the Roman law, and be found qualified two years before he can be named. Upon a vacancy in the bench, the king presents the successor by a letter addressed to the lords, wherein he requires them to try and admit the person presented. The powers given to them to reject the presentee upon trial are taken away, and a bare liberty to remonstrate substituted in its place.

Privileges of the college of justice.

7. Besides the 15 ordinary judges, the king was allowed to name three or four lords of his great council, who might sit and vote with them. These extraordinary lords were suppressed in the reign of Geo. I.

8. The appellation of the *college of justice* is not confined to the judges, who are distinguished by the name of *senators*, but comprehends advocates, clerks of session, writers to the signet, and others, as described, *Act S.* 23d Feb. 1687. Where, therefore, the college of justice is entitled to any privilege, it extends to all the members of the college. They are exempted from watching, warding, and other services within borough; and from the payment of ministers stipends, and of all customs, &c. imposed upon goods carried to or from the city of Edinburgh. Part of these privileges and immunities were lately called in question by the city of Edinburgh; but they were found by the court of session (affirmed upon appeal) to be in full force.

Jurisdiction of the session.

9. Though the jurisdiction of the session be properly limited to civil causes, the judges have always sustained themselves as competent to the crime of falsehood. Where the falsehood deserves death or demembration, they, after finding the crime proved, remit the criminal to the court of justiciary. Special statute has given to the court of session jurisdiction in contraventions of law-burrows, deforcements, and breach of arrestment; and they have been in use to judge in battery *pendente lite*, and in usury.

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10. In certain civil causes, the jurisdiction of the session is exclusive of all inferior jurisdictions; as in declarators of property, and other competitions of heritable rights, proving of the tenor, *cessiones bonorum*, restitution of minors, reductions of decrees or of writings, sales of the estates of minors or bankrupts, &c. In a second class of causes, their jurisdiction can be only exercised in the way of review, after the cause is brought from the inferior court; as in maritime and consistorial causes, which must be pursued in the first instance before the admiral or commissary; and in actions, below twelve pounds sterling, which must be commenced before the judge ordinary. In all civil actions, which fall under neither of these classes, the jurisdiction of the session is concurrent, even in the first instance, with that of the judge ordinary. The session may proceed as a court of equity by the rules of conscience, in abating the rigour of law, and giving aid in proper cases to such as in a court of law can have no remedy: and this power is inherent in the supreme court of every country, where separate courts are not established for law and for equity.

This court formerly met upon the 12th day of June and rose upon the 11th day of August for the summer session; but now, in consequence of an act passed in the session of parliament 1790, it meets on the 12th of May and rises on the 11th of July for the summer session; the winter sederunt still remaining as formerly, viz. from the 12th of November to the 11th of March inclusive.

Justiciary court.

11. The supreme criminal judge was styled the Justiciar; and he had anciently an universal civil jurisdiction, even in matters of heritage. He was obliged to hold two justice courts or ayres yearly at Edinburgh or Peebles, where all the freeholders of the kingdom were obliged to attend. Besides this universal court, special justice ayres were held in all the different shires in the kingdom twice in the year. These last having gone into disuse, eight deputies were appointed, two for every quarter of the kingdom, who should make their circuits over the whole in April and October.

12. The office of deputies was suppressed in 1672; and five lords of session were added, as commissioners of justiciary, to the justice general and justice clerk. The justice general, if present, is constant president of the court, and in his absence the justice clerk. The kingdom is divided into three districts, and two of the judges are appointed to hold circuits in certain boroughs of each district twice in the year; one judge may proceed to business in the absence of his colleague. In trials before this court the evidence was always taken down in writing till the act 23d Geo. III. was passed; by which the judges may try and determine all causes by the verdict of an assize upon examining the witnesses *viva voce*, without reducing the testimony into writing, unless it shall appear more expedient to proceed in

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the former way, which they have it in their power to do. This act was at first temporary, but is now made perpetual by 27th Gen. III. cap. 18.

13. By an old statute, the crimes of robbery, rape, murder and wilful fire raising (the four pleas of the crown), are said to be reserved to the king's court of justiciary; but the only crime in which, *de praxi*, the jurisdiction of justiciary became at last exclusive of all inferior criminal jurisdiction, was that of high treason. The court of justiciary, when sitting at Edinburgh, has a power of advocating causes from all inferior criminal judges, and of suspending their sentences.

14. The circuit court can also judge in all criminal causes which do not infer death or demembration, upon appeal from any inferior court within their district; and has a supreme civil jurisdiction, by way of appeal, in all causes not exceeding twelve pounds sterling, in which their decrees are not subject to review; but no appeal is to lie to the circuit, till the cause be finally determined in the inferior court.

Court of exchequer.

15. The court of exchequer, as the king's chamberlain court, judged in all questions of the revenue. In pursuance of the treaty of Union, that court was abolished, and a new court erected, consisting of the lord high treasurer of Great Britain, and a chief baron, with four other barons of exchequer; which barons are to be made of serjeants at law, English barristers, or Scots advocates of five years standing. This court has a private jurisdiction conferred upon it, as to the duties of customs, excise, or other revenues appertaining to the king or prince of Scotland, and as to all honours and estates that may accrue to the crown; in which matters, they are to judge by the forms of proceeding used in the English court of exchequer, under the following limitations: That no debt due to the crown shall affect the debtor's real estate in any other manner than such estate may be affected by the laws of Scotland, and that the validity of the crown's titles to any honours or lands shall continue to be tried by the court of session. The barons have the powers of the Scots court transferred to them, of passing the accounts of sheriffs, or other officers who have the execution of writs issuing from, or returnable to, the court of exchequer, and of receiving resignations, and passing signatures of charters, gifts of casualties, &c. But though all these must pass in exchequer, it is the court of session only who can judge of their preference after they are completed.

Admiralty court.

16. The jurisdiction of the admiral in maritime causes was of old concurrent with that of the session. The high admiral is declared the king's justice general upon the seas, on fresh water within flood mark, and in all harbours and creeks. His civil jurisdiction extends to all maritime causes: and so comprehends questions of charter parties, freights, salvages, bottomries, &c. He exercises this supreme jurisdiction by a delegate, the judge of the high court of admiralty; and he may also name inferior deputies, whose jurisdiction is limited to particular districts, and whose sentences are subject to the review of the high court. In causes which are declared to fall under the admiral's cognizance, his jurisdiction is sole; insomuch, that the session itself, though it may review his decrees by suspension or reduction, cannot carry a maritime question from him by advocation. The admiral has acquired, by usage, a jurisdiction in mercantile causes, even where they are not strictly maritime, cumulative with that of the judge ordinary.

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Signet.

17. All our supreme courts have seals or signets, proper to their several jurisdictions. The courts of session and justiciary used formerly the same signet, which was called the king's, because the writs issuing from them run in the king's name; and though the justiciary got at last a separate signet for itself, yet that of the session still retains the appellation of the *king's signet*. In this office are sealed summonses for citation, letters of executorial diligence, or for staying or prohibiting of diligence, and generally whatever passes by the warrant of the session, and is to be executed by the officers of the court. All these must, before sealing, be signed by the writers or clerks of the signet: But letters of diligence, where they are granted in a depending process, merely for probation, though they pass by the signet, must be subscribed by a clerk of session. The clerks of the signet also prepare and subscribe all signatures of charters, or other royal grants, which pass in exchequer.

Sect. III. *Of inferior Judges and Courts of Scotland.*

clviii. Sheriff.

1. Sheriff (from *reeve* governor, and *sheer* to cut or divide) is the judge ordinary constituted by the crown over a particular division or county. The sheriff's jurisdiction, both civil and criminal, was, in ancient times, nearly as ample within his own territory as that of the supreme courts of session and justiciary was over the whole kingdom.

2. His civil jurisdiction now extends to all actions upon contracts, or other personal obligations; forthcomings, poindings of the ground, mails and duties; and to all possessory actions, as removings, ejections, spuilzies, &c.; to all brieves issuing from the chancery, as of inquest, terce, division, tutory, &c.; and even to adjudications of land estates, when proceeding on the renunciation of the apparent heir. His present criminal jurisdiction extends to certain capital crimes, as theft, and even murder, though it be one of the pleas of the crown; and he is competent to most questions of public police, and has a cumulative jurisdiction with justices of the peace in all riots and breaches of the peace.

3. Sheriffs have a ministerial power, in virtue of which they return juries, in order to a trial of causes that require juries. The writs for electing members of parliament have been, since the union, directed to the sheriffs, who, after they are executed, return them to the crown office from whence they issued. They also execute writs issuing from the court of exchequer; and in general, take care of all estates, duties, or casualties that fall to the crown within their territory, for which they must account to the exchequer.

Lord of regality.

4. A lord of regality was a magistrate who had a grant of lands from the sovereign, with royal jurisdiction annexed thereto. His civil jurisdiction was equal to that of a sheriff; his criminal extended to the four pleas of the crown. He had a right to repledge or reclaim all criminals, subject to his jurisdiction from any other competent court, though it were the justiciary itself, to his own. He had also right, according to the most common opinion, to the single eschcat of all de-

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nounced persons residing within his jurisdiction, even though such privilege had not been expressed in the grant of regality.

Stewart.

5. The stewart was the magistrate appointed by the king over such regality lands as happened to fall to the crown by forfeiture, &c. and therefore the stewart's jurisdiction was equal to that of a regality. The two stewartries of Kirkcudbright, and of Orkney and Zetland, make shires and counties by themselves, and send each a representative to parliament.

Bailie.

6. Where lands not erected into a regality fell into the king's hands, he appointed a bailie over them, whose jurisdiction was equal to that of a sheriff.

7. By the late jurisdiction act, 20 Geo. II. all heritable regalities and bailieries, and all such heritable sheriffships and stewartries as were only parts of a shire, are dissolved; and the powers formerly vested in them are made to devolve upon such of the king's courts as these powers would have belonged to if the jurisdictions dissolved had never been granted. All sheriffships and stewartries that were no part of a shire, where they had been granted, either heritably or for life, are resumed and annexed to the crown. No high sheriff or stewart can hereafter judge personally in any cause. One sheriff or stewart-depute is to be appointed by the king in every shire, who must be an advocate of three years standing; and whose office as sheriff or stewart-depute is now by 28 Geo. II. held *ad vitam aut culpam*.

Prince of Scotland.

8. The appanage, or patrimony, of the prince of Scotland, has been long erected into a regality jurisdiction, called the Principality. It is personal to the king's eldest son, upon whose death or succession it returns to the crown. The prince has, or may have, his own chancery, from which his writs issue, and may name his own chamberlain and other officers for receiving and managing his revenue. The vassals of the prince are entitled to elect, or to be elected, members of parliament for counties, equally with those who hold of the crown.

Justices of the peace.

9. Justices of the peace are magistrates named by the sovereign over the several counties of the kingdom, for the special purpose of preserving the public peace. Anciently their power reached little farther than to bind over disorderly persons for their appearance before the privy council or justiciary; afterwards they were authorised to judge in breaches of the peace, and in most of the laws concerning public policy. They may compel workmen or labourers to serve for a reasonable fee, and they can condemn masters in the wages due to their servants. They have power to judge in questions of highways, and to call out the tenants with their cottars and servants to perform six days work yearly for upholding them. It has been lately, however, found by the court of session, that justices have no jurisdiction whatever in common actions for debt. So that it now seems fixed, that they are incompetent in such actions, except where they are declared competent by special statute.

10. Since the union, our justices of the peace, over and above the power committed to them by the laws of Scotland, are authorised to exercise whatever belong to the office of an English justice, in relation to the public peace. From that time, the Scots and the English commissions have run in the same style, which contains powers to inquire into and judge in all capital crimes, witchcraft, felonies, and several others specially enumerated: with this limitation subjoined, *of which justices of the peace may lawfully inquire*. Two justices can constitute a court. Special statute has given the cognizance of several matters of excise to the justices, in which their sentences are final. As to which, and the powers thereby vested in them, the reader must of necessity be referred to the excise laws; it not falling within the plan of this work, to enter into so very minute a detail as that would prove.

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Boroughs.

11. A borough is a body corporate, made up of the inhabitants of a certain tract of ground, erected by the sovereign, with jurisdiction annexed to it. Boroughs are erected, either to be holden of the sovereign himself, which is the general case of royal boroughs; or of the superior of the lands erected, as boroughs of regality and barony. Boroughs royal have power, by their charters, to choose annually certain office bearers or magistrates; and in boroughs of regality and barony, the nomination of magistrates is, by their charter, lodged sometimes in the inhabitants, sometimes in the superior. Bailies of boroughs have jurisdiction in matters of debt, services, and questions of possession betwixt the inhabitants. Their criminal jurisdiction extends to petty riots, and reckless fire-raising. The dean of guild is that magistrate of a royal borough who is head of the merchant company; he has the cognizance of mercantile causes within borough; and the inspection of buildings, that they encroach neither on private property, nor on the public streets; and he may direct insufficient houses to be pulled down. His jurisdiction has no dependence on the court of the borough, or bailie court.

Barons.

12. A baron, in the large sense of that word, is one who holds his lands immediately of the crown; and, as such, had, by our ancient constitution, right to a seat in parliament, however small his freehold might have been. The lesser barons were exempted from the burden of attending the service of parliament. This exemption grew insensibly into an utter disability in all the lesser barons from sitting in parliament, without election by the county; though no statute is to be found expressly excluding them.

13. To constitute a baron in the strict law sense, his lands must have been erected, or at least confirmed, by the king *in liberam baroniam*; and such baron had a certain jurisdiction, both civil and criminal, which he might have exercised, either in his own person, or by his bailie.

14. By the late jurisdiction act, the civil jurisdiction of a baron is reduced to the power of recovering from his vassals and tenants, the rents of his lands, and of condemning them in mill services; and of judging in causes where the debt and damages do not exceed 40s. sterling. His criminal jurisdiction is, by the same statute, limited to assaults, batteries, and other smaller offences, which may be punished by a fine not exceeding 20s. sterling, or by setting the offender in the stocks in the day time not above three hours; the fine to be levied by poinding, or one month's imprisonment. The jurisdiction formerly competent to proprietors of mines, and coal or salt works, over their workmen, is reserved; and also that which was competent to proprietors who had the right of fairs or markets,

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markets, for correcting the disorders that might happen during their continuance; provided they shall exercise no jurisdiction inferring the loss of life or demembration.

Constabularies.

15. The high constable of Scotland had no fixed territorial jurisdiction, but followed the court; and had, jointly with the marischal, the cognizance of all crimes committed within two leagues of it. All other constabularies were dependent on him: these had castles, and sometimes boroughs, subject to their jurisdiction, as Dundee, Montrose, &c. and among other powers, now little known, they had the right of exercising criminal jurisdiction within their respective territories during the continuance of fairs. By the late jurisdiction act, all jurisdictions of constabulary are dissolved, except that of high constable.

Lyon king at arms.

16. The office of the Lyon king of arms was chiefly ministerial, to denounce war, proclaim peace, carry public messages, &c. But he has also a right of jurisdiction, whereby he can punish all who usurp arms contrary to the law of arms, and deprive or suspend messengers, heralds, or pursuivants, (who are officers named by himself); but he has no cognizance of the damage arising to the private party through the messenger's fault. Messengers are subservient to the supreme courts of Session and Justiciary; and their proper business is to execute all the king's letters either in civil or criminal causes. They must find caution for the proper discharge of their duty *qua* messengers; and in case of any malversation, or neglect, by which damage arises to their employers, their sureties may be recurred upon for indemnification. These sureties, however, are not answerable for the conduct of the messenger in any other capacity but *qua* such; and, therefore, if a messenger is authorised to uplift payment from a debtor, and fails to account to his employer, the cautioner is not liable; his obligation extending only to the regular and proper duties of the office in executing the diligence or the like.

Sentence money.

17. Our judges had, for a long time, no other salaries or appointments than what arose from the sentences they pronounced. Our criminal judges applied to their own use the fines or issues of their several courts; and regalities had a right to the single escheat of all persons denounced, who resided within their jurisdiction; and our civil judges got a certain proportion of the sum contained in the decree pronounced. But these were all prohibited upon regular salaries being settled upon them.

Sect. V. *Of Ecclesiastical Persons.*

cl. x.

The pope.

1. The pope, or bishop of Rome, was long acknowledged, over the western part of Christendom, for the head of the Christian church. The papal jurisdiction was abolished in Scotland anno 1560. The king was, by act 1669, declared to have supreme authority over all persons, and in all causes ecclesiastical; but this act was repealed by 1690, as inconsistent with Presbyterian church government, which was then upon the point of being established.

Clergy.

2. Before the reformation from Popery, the clergy was divided into secular and regular. The secular had a particular tract of ground given them in charge, within which they exercised the pastoral office of bishop, presbyter, or other church officer. The regular clergy had no cure of souls; but were tied down to residence in their abbacies, priories, or other monasteries: and they got the name of *regular*, from the rules of mortification to which they were bound, according to the institution of their several orders. Upon the vacancy of any benefice, whether secular or regular, commendators were frequently appointed to levy the fruits, as factors or stewards during the vacancy. The pope alone could give the higher benefices *in commendam*; and, at last, from the plenitude of his power, he came to name commendators for life, and without any obligation to account. After the Reformation, several abbacies and priories were given by James VI. *in perpetuam commendam*, to laics.

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3. Upon abolishing the pope's authority, the regular clergy were totally suppressed; and in place of all the different degrees which distinguished the secular clergy, we had at first only parochial presbyters or ministers, and superintendants, who had the oversight of the church within a certain district; soon thereafter the church government became episcopal by archbishops, bishops, &c.; and after some intermediate turns, is now Presbyterian by kirk sessions, presbyteries, synods, and general assemblies.

4. Prelate, in our statutes, signifies a bishop, abbot, or other dignified clergyman, who, in virtue of his office, had a seat in parliament. Every bishop had his chapter, which consisted of a certain number of the ministers of the diocese, by whose assistance he managed the affairs of the church within that district. The nomination of bishops to vacant sees has been in the crown since 1540, though under the appearance of continuing the ancient right of election, which was in the chapter. The confirmation by the crown under the great seal, of the chapter's election, conferred a right to the spirituality of the benefice; and a second grant upon the consecration of the bishop-elect, gave a title to the temporality; but this second grant fell soon into disuse.

Patronage.

5. He who founded or endowed a church was entitled to the right of patronage thereof, or *advocatio ecclesiæ*; whereby, among other privileges, he might present a churchman to the cure, in case of a vacancy. The presentee, after he was received into the church, had a right to the benefice *proprio jure*; and if the church was parochial, he was called a *parson*. The pope claimed the right of patronage of every kirk to which no third party could show a special title; and, since the Reformation, the crown, as coming in place of the pope, is considered as universal patron, where no right of patronage appears in a subject. Where two churches are united, which had different patrons, each patron presents by turns.

6. Gentlemen of estates frequently founded colleges or collegiate churches; the head of which got the name of *provost*, under whom were certain prebendaries, or canons, who had their several stalls in the church, where they sung masses. Others of lesser fortunes founded chaplainries, which were donations granted for the singing of masses for deceased friends at particular altars in a church. Though all these were suppressed upon the Reformation, their founders continued patrons

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trons of the endowments; out of which they were allowed to provide bursars, to be educated in any of the universities.

7. Where a fund is gifted for the establishment of a second minister in a parish where the cure is thought too heavy for one, the patronage of such benefice does not belong to the donor, but to him who was patron of the church, unless either where the donor has reserved to himself the right of patronage in the donation, or where he and his successors have been in the constant use of presenting the second minister, without challenge from the patron. The right of presenting incumbents was by 1690, c. 33. taken from patrons, and vested in the heritors and elders of the parish, upon payment to be made by the heritors to the patron of 600 merks; but it was again restored to patrons, 10 An. c. 12. with the exception of the presentations sold in pursuance of the former act.

Patrons.

8. Patrons were not simply administrators of the church; for they held the fruits of the vacant benefice as their own for some time after the Reformation. But that right is now no more than a trust in the patron, who must apply them to pious uses within the parish, at the sight of the heritors, yearly as they fall due. If he fail, he loses his right of administering the vacant stipend for that and the next vacancy. The king, who is exempted from this rule, may apply the vacant stipend of his churches to any pious use, though not within the parish. If one should be ordained to a church, in opposition to the presentee, the patron, whose civil right cannot be affected by any sentence of a church court, may retain the stipend as vacant. Patrons are to this day entitled to a seat and burial place in the churches of which they are patrons, and to the right of all the teinds of the parish not heritably disponed.

9. That kirks may not continue too long vacant, the patron must present to the presbytery (formerly to the bishop) a fit person for supplying the cure, within six months from his knowledge of the vacancy, otherwise the right of presentation accrues to the presbytery *jure devoluto*. Upon presentation by the patron, the bishop collated or conferred the benefice upon the presentee by a writing, in which he appointed certain ministers of the diocese to induce or institute him into the church; which induction completed his right, and was performed by their placing him in the pulpit, and delivering to him the Bible and keys of the church. The bishop collated to the churches of which himself was patron, *pleno jure*, or without presentation: which he also did in mensal churches, whose patronages were sunk, by the churches being appropriated to him, as part of his patrimony. Since the Revolution, a judicial act of admission by the presbytery, proceeding either upon a presentation, or upon a call from the heritors and elders, or upon their own *jus devolutum*, completes the minister's right to the benefice.

Provisions for the reformed clergy.

10. Soon after the Reformation, the Popish churchmen were prevailed upon to resign in the sovereign's hands a third of their benefices; which was appropriated, in the first place, for the subsistence of the reformed clergy. To make this fund effectual, particular localities were assigned in every benefice, to the extent of a third, called the *assumption of thirds;* and for the farther support of ministers, Queen Mary made a grant in their favour of all the small benefices not exceeding 300 merks. Bishops, by the act which restored them to the whole of their benefices, were obliged to maintain the ministers within their dioceses, out of the thirds; and in like manner, the laic titulars, who got grants of the teinds, became bound, by their acceptation thereof, to provide the kirks within their erections in competent stipends.

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Commission for planting kirks, valuing teinds, &c.

11. But all those expedients for the maintenance of the clergy having proved ineffectual, a commission of parliament was appointed in the reign of James VI. for planting kirks, and modifying stipends to ministers out of the teinds; and afterwards several other commissions were appointed, with the more ample powers of dividing large parishes, erecting new ones, &c. all of which were, in 1707, transferred to the court of session, with this limitation, that no parish should be disjoined, nor new church erected, nor old one removed to a new place, without the consent of three-fourths of the heritors, computing the votes, not by their numbers, but by the valuation of their rents within the parish. The judges of session, when sitting in that court, are considered as a commission of parliament, and have their proper clerks, macers, and other officers of court, as such.

Stipends.

12. The lowest stipend that could be modified to a minister by the first commission, was 500 merks, or five chalders of victual, unless where the whole teinds of the parish did not extend too far: and the highest was 1000 merks, or ten chalders. The parliament 1633 raised the *minimum* to eight chalders of victual, and proportionably in silver; but as neither the commission appointed by that act, nor any of the subsequent ones, was limited as to the *maximum*, the commissioners have been in use to augment stipends considerably above the old *maximum*, where there is sufficiency of free teinds, and the cure is burdensome, or living expensive.

13. Where a certain quantity of stipend is modified to a minister out of the teinds of a parish, without proportioning that stipend among the several heritors, the decree is called a *decree of modification;* but where the commissioners also fix the particular proportions payable by each heritor, it is a decree of *modification and locality*. Where a stipend is only modified, it is secured on the whole teinds of the parish, so that the minister can insist against any one heritor to the full extent of his teinds; such heritor being always entitled to relief against the rest for what he shall have paid above his just share: but where the stipend is also localled, each heritor is liable in no more than his own proportion.

Manse.

14. Few of the reformed ministers were, at first, provided with dwelling houses; most of the Popish clergy having, upon the first appearance of the Reformation, let their manses in feu, or in long tack: ministers therefore got a right, in 1563, to as much of these manses as would serve them, notwithstanding such feus or tacks. Where there was no parson's nor vicar's manse, one was to be built by the heritors, at the sight of the bishop, (now the presbytery), the charge not exceeding 1000l. Scots, nor below 300 merks. Under a manse are comprehended stable, barn, and byre, with a garden; for all which it is usual to allow half an acre of ground.

15. Every

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15. Every incumbent is entitled at his entry to have his manse put in good condition; for which purpose the presbytery may appoint a visitation by tradesmen, and order estimates to be laid before them of the sums necessary for the repairing, which they may proportion among the heritors according to their valuations. The presbytery, after the manse is made sufficient, ought, upon application of the heritors, to declare it a free manse; which lays the incumbent under an obligation, to uphold it in good condition during his incumbency, otherwise he or his executors shall be liable in damages; but they are not bound to make up the loss arising from the necessary decay of the building by the waste of time.

Glebe, and

16. All ministers, where there is any landward or country parish, are, over and above their stipend, entitled to a glebe, which comprehends four acres of arable land, or sixteen sowms of pasture ground where there is no arable land (a sowm is what will graze ten sheep or one cow); and it is to be designed or marked by the bishop or presbytery out of such kirklands within the parish as lie nearest to the kirk, and, in default of kirklands, out of temporal lands.

17. A right of relief is competent to the heritors, whose lands are set off for the manse or glebe, against the other heritors of the parish. Manses and glebes being once regularly designed, cannot be feued or sold by the incumbent in prejudice of his successors, which is in practice extended even to the case where such alienation evidently appears profitable to the benefice.

Grass.

18. Ministers, beside their glebe, are entitled to grass for a horse and two cows. And if the lands, out of which the grass may be desinded, either lie at a distance, or are not fit for pasture, the heritors are to pay to the minister 20l. Scots yearly, as an equivalent. Ministers have also freedom of foggage, pasturage, fuel, feal, divot, loaning, and free ish and entry, according to use and wont: but what these privileges are, must be determined by the local custom of the several parishes.

Terms of payment of stipends.

19. The legal terms at which stipends become due to ministers are Whitsunday and Michaelmas. If the incumbent be admitted to his church before Whitsunday (till which term the corns are not presumed to be fully sown), he has right to that whole year's stipend; and, if he is received after Whitsunday, and before Michaelmas, he is entitled to the half of that year; because, though the corns were sown before his entry, he was admitted before the term at which they are presumed to be reaped. By the same reason, if he dies or is transported before Whitsunday, he has right to no part of that year; if before Michaelmas, to the half; and if not till after Michaelmas, to the whole.

Annat or ann.

20. After the minister's death, the executors have right to the annat; which, in the sense of the canon law, was a right reserved to the pope of the first year's fruits of every benefice. Upon a threatened invasion from England anno 1547, the annat was given by our parliament, notwithstanding this right in the pope, to the executors of such churchmen as should fall in battle in defence of their country: but the word *annat* or *ann*, as it is now understood, is the right which law gives to the executors of ministers, of half a year's benefice over and above what was due to the minister himself for his incumbency.

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21. The executors of a minister, need make up no title to the ann by confirmation: neither is the right assignable by the minister, or affectable with his debts; for it never belonged to him, but is a mere gratuity given by law to those for whom it is presumed the deceased could not sufficiently provide; and law has given it expressly to *executors:* and if it were to be governed by the rules of succession in executory, the widow, in case of no children, would get one half, the other would go to the next of kin; and where there are children, she would be entitled to a third, and the other two-thirds would fall equally among the children. But the court of session, probably led by the general practice, have in this last case divided the ann into two equal parts; of which one goes to the widow, and the other among the children *in capita.*

Jurisdiction of bishops.

22. From the great confidence that was, in the first ages of Christianity, reposed in churchmen, dying persons frequently committed to them the care of their estates, and of their orphan children; but these were simply rights of trust, not of jurisdiction. The clergy soon had the address to establish to themselves a proper jurisdiction, not confined to points of ecclesiastical right, but extending to questions that had no concern with the church. They judged not only in teinds, patronages, testaments, breach of vow, scandal, &c. but in questions of marriage and divorce, because marriage was a sacrament; in tochers, because these were given in consideration of marriage; in all questions where an oath intervened, on pretence that oaths were a part of religious worship, &c. As churchmen came, by the means of this extensive jurisdiction, to be diverted from their proper functions, they committed the exercise of it to their officials, or commissaries: hence the commissary court was called the *bishop's court*, and *curia Christianitatis;* it was also styled the *consistorial court;* from *consistory*, a name first given to the court of appeals of the Roman emperors, and afterwards to the courts of judicature held by churchmen.

Commissary.

23. At the Reformation, all episcopal jurisdiction, exercised under the authority of the bishop of Rome, was abolished. As the course of justice in consistorial causes was thereby stopped, Q. Mary, besides naming a commissary for every diocese, did, by a special grant, establish a new commissary court at Edinburgh, consisting of four judges or commissaries. This court is vested with a double jurisdiction; one diocesan, which is exercised in the special territory contained in the grant, viz. the counties of Edinburgh, Haddington, Linlithgow, Peebles, and a great part of Stirlingshire; and another universal, by which the judges confirm the testaments of all who die in foreign parts, and may reduce the decrees of all inferior commissaries, provided the reduction be pursued within a year after the decree. Bishops, upon their re-establishment in the reign of James VI. were restored to the right of naming their several commissaries.

24. As the clergy, in time of Popery, assumed a jurisdiction independent of the civil power or any secular court, their sentences could be reviewed only by the pope, or judges delegated by him; so that, with

regard

Law of Scotland. regard to the courts of Scotland, their jurisdiction was supreme. But, by an act 1560, the appeals from the bishops courts, that were then depending before the Roman consistories, were ordained to be decided by the court of session: and by a posterior act, 1609, the session is declared the king's great consistory, with power to review all sentences pronounced by the commissaries. Nevertheless, since that court had no inherent jurisdiction in consistorial causes prior to this statute, and since the statute gives them a power of judging only by way of advocation, they have not, to this day, any proper consistorial jurisdiction in the first instance; neither do they pronounce sentence in any consistorial cause brought from the commissaries, but remit it back to them with instructions. By the practice immediately subsequent to the act before quoted, they did not admit advocations from the inferior commissaries, till the cause was first brought before the commissaries of Edinburgh; but that practice is now in disuse.

25. The commissaries retain to this day an exclusive power of judging in declarators of marriage, and of the nullity of marriage; in actions of divorce and of non-adherence, of adultery, bastardy, and confirmation of testaments; because all these matters are still considered to be properly consistorial. Inferior commissaries are not competent to questions of divorce, under which are comprehended questions of bastardy and adherence, when they have a connexion with the lawfulness of marriage, or with adultery.

26. Commissaries have now no power to pronounce decrees in absence for any sum above 40l. Scots, except in causes properly consistorial; but they may authenticate tutorial and curatorial inventories; and all bonds, contracts, &c. which contain a clause for registration in the books of any judge competent, and protests on bills, may be registered in their book.

Sect. VI. *Of Marriage.*

cir. Marriage. 1. Persons, when considered in a private capacity, are chiefly distinguished by their mutual relations; as husband and wife, tutor and minor, father and child, master and servant. The relation of husband and wife is constituted by marriage; which is the conjunction of man and wife, vowing to live inseparably till death.

2. Marriage is truly a contract, and so requires the consent of parties. Idiots, therefore, and furious persons, cannot marry. As no person is presumed capable of consent within the years of pupillarity, which, by our law, lasts till the age of 14 in males, and 12 in females, marriage cannot be contracted by pupils; but if the married pair shall cohabit after puberty, such acquiescence gives force to the marriage. Marriage is fully perfected by consent; which, without consummation, founds all the conjugal rights and duties. The consent requisite to marriage must be *de præsenti*. A promise of marriage (*stipulatio sponsalitia*) may be resiled from, as long as matters are entire; but if any thing be done by one of the parties, whereby a prejudice arises from the non-performance, the party resiling is liable in damages to the other. The canonists, and after them our courts of justice, explain a *copula* subsequent to a promise of marriage into actual marriage. Law of Scotland.

3. It is not necessary that marriage should be celebrated by a clergyman. The consent of parties may be declared before any magistrate, or simply before witnesses: and though no formal consent should appear, marriage is presumed from the cohabitation, or living together at bed and board, of a man and woman who are generally reputed husband and wife. One's acknowledgement of his marriage to the midwife whom he called to his wife, and to the minister who baptized his child, was found sufficient presumptive evidence of marriage, without the aid either of cohabitation or of *habit* and *repute*. The father's consent was, by the Roman law, essential to the marriage of children *in familia:* but, by our law, children may enter into marriage, without the knowledge, and even against the remonstrances, of a father. Form of celebration.

4. Marriage is forbidden within certain degrees of blood. By the law of Moses (Leviticus xviii.), which by the act 1567. c. 15. has been adopted by us, seconds in blood, and all remoter degrees, may all lawfully marry. By seconds in blood are meant first cousins. Marriage in the direct line is forbidden *in infinitum;* as it is also in the collateral line, in the special case where one of the parties is *loco parentis* to the other, as grand uncle, great grand uncle, &c. with respect to his grand niece, &c. The same degrees that are prohibited in consanguinity, are prohibited in affinity; which is the tie arising from marriage betwixt one of the married pair and the blood relations of the other. Marriage also, where either of the parties is naturally unfit for generation, or stands already married to a third person, is *ipso jure* null. Forbidden degrees. Other grounds of nullity.

5. To prevent bigamy and incestuous marriages, the church has introduced proclamations of banns; which is the ceremony of publishing the names and designations of those who intend to intermarry in the churches where the bride and bridegroom reside, after the congregation is assembled for divine service; that all persons who know any objection to the marriage may offer it. When the order of the church is observed, the marriage is called *regular;* when otherwise, *clandestine*. Marriage is valid when entered into in either of these ways; but when clandestine, there are certain penalties imposed upon the parties as well as the celebrator and witnesses. Proclamation of banns.

6. By marriage, a society is created between the married pair, which draws after it a mutual communication of their civil interests, in as far as is necessary for maintaining it. As the society lasts only for the joint lives of the *socii;* therefore rights that have the nature of a perpetuity, which our law styles *heritable*, are not brought under the partnership or communion of goods; as a land estate, or bonds bearing a yearly interest: it is only moveable subjects, or the fruits produced by heritable subjects during the marriage, that become common to man and wife. Communion of goods.

7. The husband, as the head of the wife, has the sole right of managing the goods in communion, which is called *jus mariti*. This right is so absolute, that it bears but little resemblance to a right of administering a common subject. For the husband can, in virtue thereof, sell, or even gift, at his pleasure, the whole goods *Jus mari*

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goods falling under communion: and his creditors may affect them for the payment of his proper debts: so that the *jus mariti* carries all the characters of an assignation, by the wife to her husband, of her moveable estate. It arises *ipso jure* from the marriage; and therefore needs no other constitution. But a stranger may convey an estate to a wife, so as it shall not be subject to the husband's administration; or the husband himself may, in the marriage contract, renounce his *jus mariti* in all or any part of his wife's moveable estate.

Paraphernalia.

8. From this right are excepted paraphernal goods, which, as the word is understond in our law, comprehends the wife's wearing apparel, and the ornaments proper to her person; as necklaces, ear-rings, breast or arm jewels, buckles, &c. These are neither alienable by the husband, nor affectable by his creditors. Things of promiscuous use to husband and wife, as plate, medals, &c. may become paraphernalia, by the husband's giving them to the wife, at or before marriage; but they are paraphernal only in regard to that husband who gave them as such, and are esteemed common moveables, if the wife, whose *paraphernalia* they were, be afterwards married to a second husband; unless he shall in the same manner appropriate them to her.

Burdens affecting the *jus mariti.*

9. The right of the husband to the wife's moveable estate, is burdened with the moveable debts contracted by her before marriage; and as his right is universal, so also is his burden; for it reaches to her whole moveable debts, though they should far exceed her moveable estate. Yet the husband is not considered as the true debtor in his wife's debts. In all actions for payment, she is the proper defender: the husband is only cited for his interest: that is, as curator to her, and administrator of the society goods. As soon therefore as the marriage is dissolved, and the society goods thereby suffer a division, the husband is no farther concerned in the share belonging to his deceased wife: and consequently is no longer liable to pay her debts, which must be recovered from her representatives or her separate estate.

How extended against the husband.

10. This obligation upon the husband is, however, perpetuated against him, (1.) Where his proper estate, real or personal, has been affected, during the marriage by complete legal diligence; in which case, the husband must, by the common rules of law, relieve his property from the burden with which it stands charged; but the utmost diligence against his person is not sufficient to perpetuate the obligation; nor even incomplete diligence against his estate. (2.) The husband continues liable, even after the wife's death, in so far as he is *lucratus* or profited by her estate: Still, however, the law does not consider a husband who has got but a moderate tocher with the wife as *lucratus* by the marriage; it is the excess only which it considers as *lucrum*, and that must be estimated by the quality of the parties and their condition of life:—As he was at no time the proper debtor in his wife's moveable debts; therefore, though he should be *lucratus*, he is, after the dissolution, only liable for them *subsidiarie*, i. e. if her own separate estate is not sufficient to pay them off.

11. Where the wife is debtor in that sort of debt, which, if it had been due to her, would have excluded the *jus mariti*; e. g. in bonds bearing interest, which, as we shall afterwards see (clxiii. 4.), continues heritable as to the rights of husband and wife, notwithstanding of the enactment of the statute 1661, which renders them moveable in certain other respects, the husband is liable only for the bygone interests, and those that may grow upon the debt during the marriage; because his obligation for her debts must be commensurated to the interest he has in her estate. It is the husband alone who is liable in personal diligence for his wife's debts, while the marriage subsists: the wife, who is the proper debtor, is free from all personal execution upon them while she is *vestita viro*.

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The husband is the wife's curator.

12. The husband by marriage becomes the perpetual curator of the wife. From this right it arises, 1. That no suit can proceed against the wife till the husband be cited for his interest. 2. All deeds, done by a wife without the husband's consent, are null; neither can she sue in any action without the husband's concurrence. Yet, where the husband refuses, or by reason of forfeiture, &c. cannot concur; or where the action is to be brought against the husband himself, for performing his part of the marriage articles; the judge will authorize her to sue in her own name. The effects arising from this curatorial power discover themselves even before marriage, upon the publication of banns; after which the bride, being no longer *sui juris*, can contract no debt, nor do any deed, either to the prejudice of her future husband, or even to her own. But in order to this, it is necessary that the banns shall have been published in the bride's parish church as well as in that of her husband.

Separate alimony.

13. If the husband should either withdraw from his wife, or turn her out of doors; or if, continuing in family with her, he should by severe treatment endanger her life; the commissaries will authorize a separation *à mensa et thoro*, and give a separate alimony to the wife, suitable to her husband's estate, from the time of such separation until either a reconciliation or a sentence of divorce.

What obligations of the wife valid.

14. Certain obligations of the wife are valid, notwithstanding her being *sub cura mariti;* ex. gr. obligations arising from delict; for wives have no privilege to commit crimes. But if the punishment resolves into a pecuniary mulct, the execution of it must, from her incapacity to fulfil, be suspended till the dissolution of the marriage, unless the wife has a separate estate exempted from the *jus mariti*.

15. Obligations arising from contract, affect either the person or the estate. The law has been so careful to protect wives while *sub cura mariti*, that all personal obligations granted by a wife, though with the husband's consent, as bonds, bills, &c. are null; with the following exceptions: (1.) Where the wife gets a separate *peculium* or stock, either from her father or a stranger, for her own or her children's alimony, she may grant personal obligations in relation to such stock: and by stronger reason, personal obligations granted by a wife are good, when her person is actually withdrawn from the husband's power by a judicial separation. (2.) A wife's personal obligation, granted in the form of a deed *inter vivos*, is valid, if it is not to take effect till her death. (3.) Where the wife is by the husband *præposita negotiis*, intrusted with the management either of a particular branch of business or of

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of his whole affairs, all the contracts she enters into in the exercise of her *præpositura* are effectual, even though they be not reduced to writing, but should arise merely *ex re*, from furnishings made to her: but such obligations have no force against the wife; it is the husband only, by whose commission she acts, who is thereby obliged.

16. A wife, while she remains in family with her husband, is considered as *præposita negotiis domesticis*, and consequently may provide things proper for the family; for the price whereof the husband is liable, though they should be misapplied, or though the husband should have given her money to provide them elsewhere. A husband who suspects that his wife may hurt his fortune by high living, may use the remedy of inhibition against her; by which all persons are interpelled from contracting with her, or giving her credit. After the completing of this diligence, whereby the *præpositura* falls, the wife cannot bind the husband, unless for such reasonable furnishings as he cannot instruct that he provided her with *aliunde*. As every man, and consequently every husband, has a right to remove his managers at pleasure, inhibition may pass at the suit of the husband against the wife, though he should not offer to justify that measure by an actual proof of the extravagance or profusion of her temper.

Inhibition against a wife.

Rights affecting her estate.

17. As to rights granted by the wife affecting her estate, she has no moveable estate, except her *paraphernalia*; and these she may alien or impignorate, with consent of her husband. She can, without the husband, bequeath by testament her share of the goods in communion; but she cannot dispose of them *inter vivos*; for she herself has no proper right to them while the marriage subsists. A wife can lawfully oblige herself, in relation to her heritable estate, with consent of her husband: for though her person is in some sense sunk by the marriage, she continues capable of holding a real estate; and in such obligations her estate is considered, and not her person. A husband, though he be curator to his wife, can, by his acceptance or intervention, authorize rights granted by her in his own favour: for a husband's curatory differs in this respect from the curatory of minors, for it is not merely intended for the wife's advantage, but is considered as a mutual benefit to both.

Donations revocable and irrevocable.

18. All donations, whether by the wife to the husband or by the husband to the wife, are revocable by the donor; but if the donor dies without revocation, the right becomes absolute. Where the donation is not pure, it is not subject to revocation: thus, a grant made by the husband, in consequence of the natural obligation that lies upon him to provide for his wife, is not revocable, unless in so far as it exceeds the measure of a rational settlement; neither are remuneratory grants revocable, where mutual grants are made in consideration of each other, except where an onerous cause is simulated, or where what is given *hinc inde* bears no proportion to each other. All voluntary contracts of separation, by which the wife is provided in a yearly alimony, are effectual as to the time past, but revocable either by the husband or wife.

Ratification by wives.

19. As wives are in the strongest degree subject to the influence of their husbands, third parties, in whose favours they had made grants, were frequently vexed with actions of reduction, as if the grant had been extorted from the wife through the force or fear of the husband. To secure the grantees against this danger, ratifications were introduced, whereby the wife, appearing before a judge, declares upon oath, her husband not present, that she was not induced to grant the deed *ex vi aut metu*. A wife's ratification is not absolutely necessary for securing the grantee: law indeed allows the wife to bring reduction of any deed she has not ratified, upon the head of force or fear; of which, if she bring sufficient evidence, the deed will be set aside; but if she fails in the proof, it will remain effectual to the receiver.

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20. Marriage, like other contracts, might, by the Roman law, be dissolved by the contrary consent of parties; but by the law of Scotland, it cannot be dissolved till death, except by divorce, proceeding either upon the head of adultery or of wilful desertion.

Dissolution of marriage.

21. Marriage is dissolved by death, either *within* year and day from its being contracted, or *after* year and day. If it is dissolved within year and day, all rights granted in consideration of the marriage (unless guarded against in the contract) become void, and things return to the same condition in which they stood before the marriage; with this restriction, that the husband is considered as a *bona fide* possessor, in relation to what he has consumed upon the faith of his right; but he is liable to repay the tocher, without any deduction, in consideration of his family expence during the marriage. If things cannot be restored on both sides, equity hinders the restoring of one party and not the other. In a case which was lately before the court of session, it was determined after a long hearing in presence, that where a marriage had been dissolved within the year without a living child, by the death of the husband, the widow was entitled to be alimented out of an estate of which he died possessed, though there were no conventional provisions stipulated in favour of the wife.

22. Upon the dissolution of a marriage, after year and day, the surviving husband becomes the irrevocable proprietor of the tocher; and the wife, where she survives, is entitled to her jointure, or to her legal provisions. She has also right to mournings, suitable to the husband's quality; and to alimony from the day of his death till the term at which her liferent provision, either legal or conventional, commences. If a living child be procreated of the marriage, the marriage has the same effect as if it had subsisted beyond the year. A day is adjected to the year, *in majorem evidentiam*, that it may clearly appear that the year itself is elapsed; and therefore, the running of any part of the day, after the year, has the same effect as if the whole were elapsed. The legal right of courtesy competent to the surviving husband is explained below, N° clxx. 28.

Divorce.

23. Divorce is such a separation of married persons, during their lives, as looses them from the nuptial tie, and leaves them at freedom to intermarry with others. But neither adultery, nor wilful desertion, are grounds which must necessarily dissolve marriage; they are only handles, which the injured party may take hold of to be free. Cohabitation, therefore, by the injured party, after being in the knowledge of the acts of adultery, implies a passage from the injury; and no divorce can proceed, which is carried on by collusion betwixt.

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twixt the parties, lest, contrary to the first institution of marriage, they might disengage themselves by their own consent; and though, after divorce, the guilty person, as well as the innocent, may contract second marriages; yet, in the case of divorce upon adultery, marriage is by special statute (1600. c. 20.) prohibited betwixt the two adulterers,

24. Where either party has deserted from the other for four years together, that other may sue for adherence. If this has no effect, the church is to proceed, first by admonition, then by excommunication; all which previous steps are declared to be a sufficient ground for pursuing a divorce. *De praxi*, the commissaries pronounce sentence in the adherence, after one year's desertion; but four years must intervene between the first desertion and the decree of divorce.

25. The legal effects of divorce on the head of desertion are, that the offending husband shall restore the tocher, and forfeit to the wife all her provisions, legal and conventional; and, on the other hand, the offending wife shall forfeit to the husband her tocher, and all the rights that would have belonged to her in the case of her survivance. This was also esteemed the rule in divorces upon adultery. But by a decision of the court of session 1662, founded on a tract of ancient decisions recovered from the records, the offending husband was allowed to retain the tocher.

Sect. VII. *Of Minors, and their Tutors and Curators.*

exli. Pupillarity, &c.

1. The stages of life principally distinguished in law are *pupillarity*, *puberty* or *minority*, and *majority*. A child is under pupillarity, from the birth to 14 years of age if a male, and till 12 if a female. Minority begins where pupillarity ends, and continues till majority; which, by the law of Scotland, is the age of 21 years complete, both in males and females: but minority, in a large sense, includes all under age, whether pupils or *puberes*. Because pupils cannot in any degree act for themselves, and minors seldom with discretion, pupils are put by law under the power of tutors, and minors may put themselves under the direction of curators. Tutory is a power and faculty to govern the person, and administer the estate, of a pupil. Tutors are either *nominate*, *of law*, or *dative*.

Tutors.

2. A tutor nominate is he who is named by a father, in his testament or other writing, to a lawful child. Such tutor is not obliged to give caution for the faithful discharge of his office; because his fidelity is presumed to have been sufficiently known to the father.

3. If there be no nomination by the father, or if the tutors nominate do not accept, or if the nomination falls by death or otherwise, there is a place for a *tutor of law*. This sort of tutory devolves upon the next agnate; by which we understand he who is nearest related by the father, though females intervene.

Agnates.

4. Where there are two or more agnates equally near to the pupil, he who is entitled to the pupil's legal succession falls to be preferred to the others. But as the law suspects that he may not be over careful to preserve a life which stands in the way of his own interest, this sort of tutor is excluded from the custody of the pupil's person; which is commonly committed to the mother, while a widow, until the pupil be seven years old; and, in default of the mother, to the next cognate, i. e. the nighest relation by the mother. The tutor of law must (by act 1474) be at least 25 years of age. He is served or declared by a jury of sworn men, who are called upon a brief issuing from the chancery, which is directed to any judge having jurisdiction. He must give security before he enters upon the management.

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5. If no tutor of law demands the office, any person, even a stranger, may apply for a tutory *dative*. But because a tutor in law ought to be allowed a competent time to deliberate whether he will serve or not, no tutory dative can be given till the elapsing of a year from the time at which the tutor of law had first a right to serve. It is the king alone, as the father of his country, who gives tutors dative, by his court of exchequer; and by act 1672, no gift of tutory can pass in exchequer, without the citation or consent of the next of kin to the pupil, both by the father and mother, nor till the tutor give security, recorded in the books of exchequer. There is no room for a tutor of law, or tutor dative, while a tutor nominate can be hoped for: and tutors of law or dative, even after they have begun to act, may be excluded by the tutor nominate, as soon as he offers to accept, unless he has expressly renounced the office. If a pupil be without tutors of any kind, the court of session will, at the suit of any kinsman, name a factor (steward) for the management of the pupil's estate.

Judicial factor.

6. After the years of pupillarity are over, the minor is considered as capable of acting by himself, if he has confidence enough of his own capacity and prudence. The only two cases in which curators are imposed upon minors are, (1.) Where they are named by the father, in a state of health. (2.) Where the father is himself alive; for a father is *ipso jure*, without any service, administrator, that is, both tutor and curator of law to his children, in relation to whatever estate may fall to them during their minority. This right in the father does not extend to grandchildren, nor to such even of his immediate children as are forisfamiliated. Neither has it place in subjects which are left by a stranger to the minor exclusive of the father's administration. If the minor chooses to be under the direction of curators, he must raise and execute a summons, citing at least two of his next of kin to appear before his own judge ordinary, upon nine days warning (by act 1555). At the day and place of appearance, he offers to the judge a list of those whom he intends for his curators: such of them as resolve to undertake the office must sign their acceptance, and give caution; upon which an act of curatory is extracted.

Curators.

7. These curators are styled *ad negotia;* to distinguish them from another sort called curators *ad lites*, who are authorized by the judge to concur with a pupil or minor in actions of law, either where he is without tutors and curators, or where his tutors and curators are parties to the suit. This sort is not obliged to give caution, because they have no intermeddling with the minor's estate: they are appointed for a special purpose; and when that is over, their office is at an end.

Who debarred from tutory and curatory.

Women are capable of being tutors and curators under the following restrictions: (1.) The office of a female

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tutor or curator falls by her marriage, even though the nomination should provide otherwise; for she is no longer *sui juris*, and incapable of course of having another under her power. (2.) No woman can be tutor of law. Papists are (by act 1700) declared incapable of tutory or curatory. Where the minor has more tutors and curators than one, who are called in the nomination to the *joint* management, they must *all* concur in every act of administration; where a certain number is named for a quorum, *that number* must concur: where any one is named *sine qua non*, no act is valid without that one's special concurrence. But if they are named without any of these limitations, the concurrence of *the majority* of the nominees then alive is sufficient.

Difference between tutory and curatory.

8. In this, tutory differs from curatory, that as pupils are incapable of consent, they have no person capable of acting; which defect the tutor supplies: but a minor *pubes* can act for himself. Hence, the tutor subscribes alone all deeds of administration: but in curatory, it is the minor who subscribes as the proper party; the curator does no more than consent. Hence also, the persons of pupils are under the power either of their tutors or of their nearest cognates; but the minor, after pupillarity, has the disposal of his own person, and may reside where he pleases. In most other particulars, the nature, the powers, and the duties of the two offices, coincide. Both tutors and curators must, previous to their administration, make a judicial inventory, subscribed by them and the next of kin, before the minor judge ordinary, of his whole estate personal and real; of which, one subscribed duplicate is to be kept by the tutors or curators themselves; another, by the next of kin on the father's side; and a third by the next of kin on the mother's. If any estate belonging to the minor shall afterwards come to their knowledge, they must add it to the inventory within two months after their attaining possession thereof. Should they neglect this, the minor's debtors are not obliged to make payment to them: they may be removed from their offices as suspected; and they are entitled to no allowance for the sums disbursed by them in the minor's affairs (act 1672), except the expence laid out upon the minor's entertainment, upon his lands and houses, and upon completing his titles.

Judicial inventories.

Powers of tutors and curators.

9. Tutors and curators cannot grant leases of the minor's lands, to endure longer than their own office; nor under the former rental, without either a warrant from the court of session, or some apparent necessity.

10. They have power to sell the minor's moveables; but cannot sell their pupil's land estate, without the authority of a judge; yet this restraint reaches not to such alienations as the pupil could by law be compelled to grant, *e. g.* to renunciations of wadsets upon redemption by the reverser; for in such case, the very tenor of his own right lays him under the obligation; nor to the renewal of charters to heirs; but the charter must contain no new right in favour of the heir. The alienation, however, of heritage by a minor, with consent of his curators, is valid.

11. Tutors and curators cannot, contrary to the nature of their trust, authorize the minor to do any deed for their own benefit; nor can they acquire any debt affecting the minor's estate: and, where a tutor or curator makes such acquisition, in his own name, for a less sum than the right is entitled to draw, the benefit thereof accrues to the minor. It seems, however, that such purchase would be considered as valid, provided it were *bona fide* acquired at a public sale; for in such case it occurs that the tutor or curator is in fact meliorating the situation of his ward by enhancing the value of his property by a fair competition. In general, it seems to be the genius and spirit of our law, that tutors and curators shall do every thing in their power towards the faithful and proper discharge of their respective offices.

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Their obligations.

12. By the Roman law, tutory and curatory, being *munera publica*, might be forced upon every one who had not a relevant ground of excuse: but, with us, the persons named to these offices may either accept or decline: and where a father, in *liege poustie* (when in a state of health) names certain persons both as tutors and curators to his children, though they have acted as tutors, they may decline the office of curatory. Tutors and curators having once accepted, are liable in *diligence*, that is, are accountable for the consequences of their neglect in any part of their duty from the time of their acceptance. They are accountable *singuli in solidum*, i. e. every one of them is answerable, not only for his own diligence, but for that of his co-tutors; and any one may be sued without citing the rest: but he who is condemned in the whole, has action of relief against his co-tutors.

13. From this obligation to diligence, we may except, (1.) Fathers or administrators-in-law, who, from the presumption that they act to the best of their power for their children, are liable only for actual intromissions. (2.) Tutors and curators named by the father in consequence of the act, 1696, with the special provisos, that they shall be liable barely for intromissions, not for omissions; and that each of them shall be liable only for himself, and not *in solidum* for the co-tutors: but this power of exemption from diligence is limited to the estate descending from the father himself. Tutors or curators are not entitled to any salary or allowance for pains, unless a salary has been expressly contained in the testator's nomination; for their office is presumed gratuitous.

14. Though no person is obliged to accept the office of tutor or curator; yet having once accepted, he cannot throw it up or renounce it without sufficient cause; but, if he should be guilty of misapplying the minor's money, or fail in any other part of his duty, he may be removed at the suit of the minor's next in kin, or by a co-tutor or co-curator. Where the misconduct proceeds merely from indolence or inattention, the court, in place of removing the tutor, either join a curator with him, or, if he be a tutor nominate, they oblige him to give caution for his past and future management.

How tutory and curatory expire.

15. The offices of tutory and curatory expire also by the pupil's attaining the age of puberty, or the minor's attaining the age of 21 years complete; and by the death either of the minor, or of his tutor and curator. Curatory also expires by the marriage of a female minor, who becomes thereby under the coverture of her own husband. After expiry of the office, reciprocal actions lie at the instance both of the tutors and curators, and of the minor. That at the instance of the minor is called *actio tutelæ directa*, by which he can compel

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pel the tutors to account; that at the instance of the tutors, *actio tutelæ contraria*, by which the minor can be compelled to repeat what has been profitably expended during the administration: but this last does not lie till after accounting to the minor; for till then the tutors are presumed *intus habere* to the effects in their own hands for answering their disbursements.

Effects of deeds by minors.

16. Deeds either by pupils, or by minors having curators without their consent, are null; but they oblige the granters in as far as relates to sums profitably applied to their use. A minor under curators can indeed make a testament by himself; but whatever is executed in the form of a deed *inter vivos*, requires the curator's consent. Deeds by a minor who has no curators, are as effectual as if he had had curators, and signed them with their consent; he may even alien his heritage, without the interposition of a judge.

Restitution.

17. Minors may be restored against all deeds granted in their minority, that are hurtful to them. Deeds, in themselves void, need not the remedy of restitution; but where hurtful deeds are granted by a tutor in his pupil's affairs, or by a minor who has no curators, as these deeds subsist in law, restitution is necessary: and even where a minor, having curators, executes a deed hurtful to himself with their consent, he has not only action against the curators, but he has the benefit of restitution against the deed itself. The minor cannot be restored, if he does not raise and execute a summons for reducing the deed, *ex capite minorennitatis et læsionis*, before he be 25 years old. These four years, between the age of 21 and 25, called *quadriennium utile*, are indulged to the minor, that he may have a reasonable time, from that period, when he is first presumed to have the perfect use of his reason, to consider with himself what deeds done in his minority have been truly prejudicial to him.

Its requisites.

18. Questions of restitution are proper to the court of session. Two things must be proved by the minor, in order to the reduction of the deed: (1.) That he was minor when it was signed: (2.) That he is hurt or lesed by the deed. This lesion must not proceed merely from accident; for the privilege of restitution was not intended to exempt minors from the common misfortune of life; it must be owing to the imprudence or negligence of the minor, or his curator.

How excluded.

19. A minor cannot be restored against his own delict or fraud; e. g. if he should induce one to bargain with him by saying he was major. (1.) Restitution is excluded, if the minor, at any time after majority, has approved of the deed, either by a formal ratification, or tacitly by payment of interest, or by other acts inferring approbation. (2.) A minor, who has taken himself to business, as a merchant-shopkeeper, &c. cannot be restored against any deed granted by him in the course of that business, especially if he was *proximus majorennitati* at signing the deed. (3.) According to the more common opinion, a minor cannot be restored in a question against a minor, unless some gross unfairness shall be qualified in the bargain.

How transmitted to the heir.

20. The privilege of restitution does not always die with the minor himself. (1.) If a minor succeeds to a minor, the time allowed for restitution is governed by the minority of the heir, not of the ancestor. (2.) If a minor succeeds to a major, who was not full 25, the privilege continues with the heir during his minority; but he cannot avail himself of the *anni utiles*, except in so far as they were unexpired at the ancestor's death. (3.) If a major succeeds to a minor, he has only the *quadriennium utile* after the minor's death, and if he succeeds to a major dying within the *quadriennium*, no more of it can be profitable to him than what remained when the ancestor died.

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Minor non tenetur placitare.

21. No minor can be compelled to state himself as a defender, in any action, whereby his heritable estate flowing from ascendants may be evicted from him, by one pretending a preferable right.

22. This privilege is intended merely to save minors from the necessity of disputing upon questions of preference. It does not therefore take place, (1.) Where the action is pursued on the father's falsehood or delict. (2.) Upon his obligation to convey heritage. (3.) On his liquid bond for a sum of money, though such action should have the effect to carry off the minor's estate by adjudication. (4.) Nor in actions pursued by the minor's superior, upon feudal casualties. (5.) This privilege cannot be pleaded in bar of an action which had been first brought against the father, and is only continued against the minor; nor where the father was not in the peaceable possession of the heritable subject at his death. Before the minor can plead it, he must be served heir to his father. The persons of pupils are by said act 1696 protected from imprisonment on civil debts.

Curators of idiots and furious persons.

23. Curators are given, not only to minors, but in general to every one who, either through defect of judgment, or unfitness of disposition, is incapable of rightly managing his own affairs. Of the first sort, are idiots and furious persons. Idiots, or *fatui*, are entirely deprived of the faculty of reason. The distemper of the furious person does not consist in the defect of reason; but in an overheated imagination, which obstructs the application of reason to the purposes of life. Curators may be also granted to lunatics; and even to persons dumb and deaf, though they are of sound judgement, where it appears that they cannot exert it in the management of business. Every person, who is come of age, and is capable of acting rationally, has a natural right to conduct his own affairs. The only regular way, therefore, of appointing this sort of curators, is by a jury summoned upon a brief from the chancery; which is not, like the brief of common tutory, directed to any judge ordinary, but to the judge of the special territory where the person alleged to be fatuous or furious resides; that, if he is truly of sound judgement, he may have an opportunity to oppose it: and for this reason, he ought to be made a party to the brief. The curatory of idiots and furious persons belongs to the nearest agnate; but a father is preferred to the curatory of his fatuous son, and the husband to that of his fatuous wife, before the agnate.

24. A clause is inserted in the brief, for inquiring how long the furious or fatuous person has been in that condition: and the verdict to be pronounced by the inquest has a retrospective effect: for it is declared a sufficient ground, without further evidence, for reducing all deeds granted after the period at which it appeared by the proof that the fatuity or furiosity began. But, as fatuous and furious persons are, by their very state, incapable of being obliged, all deeds done by them may be declared void, upon proper evidence of

their

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their fatuity at the time of signing, though they should never have been cognosced idiots by an inquest.

25. We have some few instances of the sovereign's giving curators to idiots, where the next agnate did not claim; but such gifts are truly deviations from our law, since they pass without any inquiry into the state of the person upon whom the curatory is imposed.—Hence the curator of law to an idiot serving *quandocunque*, is preferred, as soon as he offers himself, before the curator-dative. This sort of curatory does not determine by the lucid intervals of the person *sub cura*; but it expires by his death, or perfect return to a sound judgment; which last ought regularly to be declared by the sentence of a judge.

Interdiction.

26. Persons, let them be ever so profuse, or liable to be imposed upon, if they have the exercise of reason, can effectually oblige themselves, till they are fettered by law. This may be done by *Interdiction*, which is a legal restraint laid upon such persons from signing any deed to their own prejudice, without the consent of their curators or interdictors.

27. There could be no interdiction by our ancient practice, without a previous inquiry into the person's condition. But as there were few who could bear the shame that attends judicial interdiction, however necessary the restraint might have been, voluntary interdiction has received the countenance of law; which is generally executed in the form of a bond, whereby the granter obliges himself to do no deed that may affect his estate, without the consent of certain friends therein mentioned. Though the reasons inductive of the bond should be but gently touched in the recital, the interdiction stands good. Voluntary interdiction, though it be imposed by the sole act of the person interdicted, cannot be recalled at his pleasure: but it may be taken off, (1.) By a sentence of the court of session, declaring, either that there was from the beginning no sufficient ground for the restraint; or that the party is, since the date of the bond, become *rei sui providus*. (2.) It falls, even without the authority of the lords, by the joint act of the person interdicted, and his interdictors, concurring to take it off. (3.) Where the bond of interdiction requires a certain number as a quorum, the restraint ceases, if the interdictors shall by death be reduced to a lesser number.

28. Judicial interdiction is imposed by a sentence of the court of session. It commonly proceeds on an action brought by a near kinsman to the party; and sometimes from the *nobile officium* of the court, when they perceive, during the pendency of a suit, that any of the litigants is, from the facility of his temper, subject to imposition. This sort must be taken off by the authority of the same court that imposed it.

Registration of interdictions.

29. An interdiction need not be served against the person interdicted; but it must be executed, or published by a messenger, at the market cross of the jurisdiction where he resides, by publicly reading the interdiction there, after three oyesses made for convocating the lieges. A copy of this execution must be affixed to the cross; and thereafter, the interdiction, with its execution, must (by the act 1581) be registered in the books both of the jurisdiction where the person interdicted resides and where his lands lie, or (by the act 1600) in the general register of the session, within 40 days from the publication. An interdiction, before it is registered, has no effect against third parties, though they should be in the private knowledge of it; but it operates against the interdictors themselves, as soon as it is delivered to them. Law of Scotland.

Effects.

30. An interdiction, duly registered, has this effect, that all deeds done thereafter, by the person interdicted, without the consent of his interdictors, affecting his heritable estate, are subject to reduction. Registration in the general register secures all his lands from alienation, wherever they lie; but where the interdiction is recorded in the register of a particular shire, it covers no lands except those situated in that shire. But persons interdicted have full power to dispose of their moveables, not only by testament, but by present deeds of alienation: And creditors, in personal bonds granted after interdiction, may use all execution against their debtor's person and moveable estate: such bonds being only subject to reduction in so far as diligence against the heritable estate may proceed upon them.

31. All onerous or rational deeds granted by the person interdicted, are as effectual, even without the consent of the interdictors, as if the granter had been laid under no restraint; but he cannot alter the succession of his heritable estate, by any settlement, let it be ever so rational. No deed, granted with consent of the interdictors, is reducible, though the strongest lesion or prejudice to the granter should appear: the only remedy competent, in such case, is an action by the granter against his interdictors, for making up to him what he has lost through their undue consent. It is no part of the duty of interdictors to receive sums or manage any estate; they are given merely *ad auctoritatem præstandam*, to interpose their authority to reasonable deeds: and so are accountable for nothing but their fraud or fault, in consenting to deeds hurtful to the person under their care. Office of interdictors.

Lawful children.

32. The law concerning the state of children falls next to be explained. Children are either born in wedlock, or out of it. All children born in lawful marriage or wedlock, are presumed to be begotten by the person to whom the mother is married; and consequently to be lawful children. This presumption is so strongly founded, that it cannot be defeated but by direct evidence that the mother's husband could not be the father of the child, *e. g.* where he is impotent, or was absent from the wife till within six lunar months of the birth. The canonists indeed maintain, that the concurring testimony of the husband and wife, that the child was not procreated by the husband, is sufficient to elide this legal presumption for legitimacy: but it is an agreed point, that no regard is to be paid to such testimony, if it be made after they have owned the child to be theirs. A father has the absolute right of disposing of his children's person, of directing their education, and of moderate chastisement; and even after they become *puberes*, he may compel them to live in family with him, and to contribute their labour and industry, while they continue there, towards his service. A child who gets a separate stock from the father for carrying on any trade or employment, even though he should continue in the father's house, may be said to be emancipated or forisfamiliated, in so far as it concerns that stock; for the profits arising from it are his own. Forisfamiliation, when taken in this sense, is also inferred

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red by the child's marriage, or by his living in a separate house, with his father's permission or good will. Children, after their full age of twenty-one years, become, according to the general opinion, their own masters; and from that period are bound to the father only by the natural ties of duty, affection, and gratitude. The mutual obligations between parents and children to maintain each other, are explained afterwards, N° clxxiii. 4.

Bastards.

33. Children born out of wedlock, are styled natural children, or bastards. Bastards may be legitimated or made lawful. (1.) By the subsequent intermarriage of the mother of the child with the father. And this sort of legitimation entitles the child to all the rights of lawful children. The subsequent marriage, which produces legitimation, is considered by the law to have been entered into when the child legitimated was begotten; and hence, if he be a male, he excludes, by his right of primogeniture, the sons procreated after the marriage, from the succession of the father's heritage, though the sons were lawful children from the birth. Hence, also, those children only can be thus legitimated, who are begotten of a woman whom the father might at that period have lawfully married. (2.) Bastards are legitimated by letters of legitimation from the sovereign. N° clxxxii. 3.

Servants.

34. As to the power of masters over their servants: All servants now enjoy the same rights and privileges with other subjects, unless in so far as they are tied down by their engagements of service. Servants are either necessary or voluntary. Necessary are those whom law obliges to work without wages, of whom immediately. Voluntary servants engage without compulsion, either for mere subsistence, or also for wages. Those who earn their bread in this way, if they should stand off from engaging, may be compelled to it by the justices of the peace, who have power to fix the rate of their wages.

Colliers and salters.

35. Colliers, coal-bearers, salters, and other persons necessary to colliers and salt works, as they are particularly described by act 1661, were formerly tied down to perpetual service at the works to which they had once entered. Upon a sale of the works, the right of their service was transferred to the new proprietor. All persons were prohibited to receive them into their service, without a testimonial from their last master; and if they deserted to another work, and were redemanded within a year thereafter, he who had received them was obliged to return them within twenty-four hours, under a penalty. But though the proprietor should neglect to require the deserter within the year, he did not by that short prescription, lose his property in him. Colliers, &c. where the colliery to which they were restricted was either given up, or not sufficient for their maintenance, might lawfully engage with others; but if that work should be again set a going, the proprietor might reclaim them back to it.

Restraints lately taken off.

36. But by 15 Geo. III. c. 28. these restraints, the only remaining vestiges of slavery in the law of Scotland, are abrogated; and, after the 1st July 1775, all colliers, coal-bearers, and salters, are declared to be upon the same footing with other servants or labourers. The act subjects those who are bound prior to the 1st July 1775, to a certain number of years service for their freedom, according to the age of the person.

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37. The poor make the lowest class or order of persons. Indigent children may be compelled to serve any of the king's subjects without wages, till the age of thirty years. Vagrants and sturdy beggars may be also compelled to serve any manufacturer. And because few persons were willing to receive them into their service, public workhouses are ordained to be built for setting them to work. The poor who cannot work, must be maintained by the parishes in which they were born; and where the place of their nativity is not known, that burden falls upon the parishes where they have had their most common resort, for the three years immediately preceding their being apprehended or their applying for the public charity. Where the contributions collected at the churches to which they belong are not sufficient for their maintenance, they are to receive badges from the minister and kirk session, in virtue of which they may ask alms at the dwelling-houses of the inhabitants of the parish.

CHAP. II. *Of* THINGS.

THE things, or subjects, to which persons have right, are the second object of law.

SECT. I. *Of the Division of Rights, and the several ways by which a Right may be acquired.* clxii.

Property.

1. The right of enjoying and disposing of a subject at one's pleasure, is called property. Proprietors are restrained by law from using their property emulously to their neighbour's prejudice. Every state or sovereign has a power over private property, called, by some lawyers, *dominium eminens*, in virtue of which, the proprietor may be compelled to sell his property for an adequate price, where an evident utility on the part of the public demands it.

Things incapable of appropriation.

2. Certain things are by nature itself incapable of appropriation; as the air, the light, the ocean, &c.; none of which can be brought under the power of any one person, though their use be common to all. Others are by law exempted from private commerce, in respect of the uses to which they are destined. Of this last kind are, (1.) *Res publicæ*, as navigable rivers, highways, bridges, &c. the right of which is vested in the king, chiefly for the benefit of his people, and they are called *regalia*. (2.) *Res universitatis*, things which belong in property to a particular corporation or society, and whose use is common to every individual in it, but both property and use are subject to the regulations of the society; as town houses, corporation halls, market-places, churchyards, &c. The lands or other revenue belonging to a corporation do not fall under this class, but are *juris privati, quoad* the corporation.

Ways of acquiring property.

3. Property may be acquired either by *occupation* or *accession*; and transferred by *tradition* or *prescription*; but prescription being also a way of losing property, falls to be explained under a separate title. OCCUPATION, or occupancy, is the appropriating of things which have no owner, by apprehending them, or seizing their possession. This was the original method of acquiring property: and continued, under certain restrictions, the doctrine of the Roman law, *Quod nullius est, fit occupantis:* but it can have no room in the feudal plan,

Law of Scotland. plan, by which the king is looked on as original proprietor of all the lands within his dominions.

4. Even in that sort of moveable goods which are presumed to have once had an owner, this rule obtains by the law of Scotland, *Quod nullius est, fit domini regis.* Thus, the right of treasure hid under ground is not acquired by occupation, but accrues to the king.—Thus also, where one finds strayed cattle or other moveables, which have been lost by their former owner, the finder acquires no right in them, but must give public notice thereof; and if, within year and day after such notice, the proprietor does not claim his goods, they fall to the king, sheriff, or other person to whom the king has made a grant of such escheats.

5. In that sort of moveables which never had an owner, as wild beasts, fowls, fishes, or pearls found on the shore, the original law takes place, that he who first apprehends, becomes proprietor; insomuch, that though the right of hunting, fowling, and fishing, be restrained by statute, under certain penalties, yet all game, even what is catched in contravention of the law, becomes the property of the catcher (unless where the confiscation thereof is made part of the penalty), the contravener being obnoxious, however, to the penal enactment of the statutes in consequence of his transgression. It was not for a long time a fixed point whether a person, though possessed of the valued rent by law entitling him to kill game, could hunt upon another person's ground without consent; but it was lately found by the court of session, and affirmed upon appeal, that he could not; it being repugnant to the idea of property, that any person, however qualified, should have it in his power to traverse and hunt upon another's grounds without consent of the proprietor. Although certain things became the property of the first occupant, yet there are others which fall not under this rule. Thus, whales thrown in or killed on our coasts, belong neither to those who kill them, nor to the proprietor of the grounds on which they are cast; but to the king, providing they are so large as that they cannot be drawn by a wain with six oxen.

Accession. 6. ACCESSION is that way of acquiring property, by which, in two things which have a connexion with, or dependence on, one another, the property of the principal thing draws after it the property of its accessory. Thus the owner of a cow becomes the owner of the calf; a house belongs to the owner of the ground on which it stands, though built with materials belonging to and at the charge of another; trees taking root in our ground, though planted by another become ours. Thus also the insensible addition made to one's ground by what a river washes from other grounds, (which is called *alluvio*), accrues to the master of the ground which receives the addition; but where it happened that a large piece of ground was disjoined and annexed to another person's by the force of a river or any other accident, and which was by the Romans called *avulsio*, they considered the owner's right of property still to subsist, § 21. *Inst. de rer. divis.*; and it is probable that, in a similar case, our courts would countenance the distinction. The Romans excepted from this rule the case of paintings drawn on another man's board or canvas, in consideration of the excellency of the art; which exception our practice has for a like reason extended to similar cases.

Law of Scotland. 7. Under accession is comprehended SPECIFICATION; by which is meant, a person's making a new species or subject, from materials belonging to another. Where the new species can be again reduced to the matter of which it was made, law considers the former mass as still existing; and therefore, the new species, as an accessory to the former subject, belongs to the proprietor of that subject: but where the thing made cannot be so reduced, as in the case of wine, which cannot be again turned into grapes, there is no place for the *fictio juris*; and therefore the workmanship draws after it the property of the materials. But the person who thus carries the property from the other is bound to indemnify him according to the true value; and in case it was done *mala fide*, he may be made liable in the *pretium affectionis* or utmost value. Specification.

Commixtion. 8. Though the new species should be produced from the COMMIXTION or confusion of different substances belonging to different proprietors, the same rule holds; but where the mixture is made by the common consent of the owner, such consent makes the whole a common property, according to the shares that each proprietor had formerly in the several subjects. Where things of the same sort are mixed without the consent of the proprietors, which cannot again be separated; e. g. two hogsheads of wine, the whole likewise becomes a common property; but, in the after division, regard ought to be had to the different quality of the wines: if the things so mixed admit of a separation, e. g. two flocks of sheep, the property continues distinct.

Tradition. 9. Property is carried from one to another by TRADITION; which is the delivery of possession by the proprietor with the intention to transfer the property to the receiver. Two things are therefore requisite, in order to the transmitting of property in this way: 1. The intention or consent of the former owner to transfer it on some proper title of alienation, as sale, exchange, gift, &c. (2.) The actual delivery in pursuance of that intention. The first is called the *causa*, the other the *modus transferendi dominii*: which last is so necessary to the acquiring of property, that he who gets the last right, with the first tradition, is preferred according to the rule, *Traditionibus, non nudis pactis, transferuntur rerum dominia.*

10. Tradition is either real, where the *ipsa corpora* of moveables are put into the hands of the receiver; or symbolical, which is used where the thing is incapable of real delivery, or even when actual delivery is only inconvenient. Where the possession or custody of the subject has been before with him to whom the property is to be transferred, there is no room for tradition.

Possession. 11. Possession, which is essential both to the acquisition and enjoyment of property, is defined, the detention of a thing, with a design or *animus* in the detainer of holding it as his own. It cannot be acquired by the sole act of the mind, without real detention; but, being once acquired, it may be continued *solo animo*. Possession is either natural, or civil. Natural possession natural is, when one possesses by himself: thus, we possess lands by cultivating them and reaping their fruits, houses by inhabiting them, moveables by detaining them in our hands. Civil possession is our holding the thing, either by the sole act of the mind, or by the hands of another who

Law of Scotland. who holds it in our name: thus, the owner of a thing lent possesses it by the borrower; the proprietor of lands, by his tacksmen, trustee, or steward, &c. The same subject cannot be possessed entirely, or *in solidum*, by two different persons at one and the same time: and therefore possession by an act of the mind ceases, as soon as the natural possession is so taken up by another, that the former possessor is not suffered to re-enter. Yet two persons may, in the judgment of law, possess the same subject, at the same time, on different rights: thus, in the case of a pledge, the creditor possesses it in his own name, in virtue of the right of impignoration; while the proprietor is considered as possessing, in and through the creditor, in so far as is necessary for supporting his right of property. The same doctrine holds in liferenters, tacksmen, and, generally, in every case where there are rights affecting a subject distinct from the property.

bona fide. 12. A *bona fide* possessor is he who, though he is not really proprietor of the subject, yet believes himself proprietor on probable grounds. A *male fide* possessor is he who knows, or is presumed to know, that what he possesses is the property of another. A possessor *bona fide* acquired right, by the Roman law, to the fruits of the subject possessed, that had been reaped and consumed by himself, while he believed the subjects his own. By our customs, perception alone, without consumption, secures the possessor: nay, if he has sown the ground, while his *bona fides* continued, he is entitled to reap the crop, *propter curam et culturam*. But this doctrine does not reach to civil fruits, e. g. the interest of money, which the *bona fide* receiver must restore, together with the principal, to the owner.

13. *Bona fides* necessarily ceaseth by the *conscientia rei alienæ* in the possessor, whether such consciousness should proceed from legal interpellation, or private knowledge. *Mala fides* is sometimes induced by the true owner's bringing his action against the possessor, sometimes not till litiscontestation, and, in cases uncommonly favourable, not till the sentence be pronounced against the possessor.

Effects of possession. 14. The property of moveable subjects is presumed by the bare act of possession, until the contrary be proved; but possession of an immoveable subject, though for a century of years together, if there is no seisin, does not create even a presumptive right to it: *Nulla sesina, nulla terra.* Such subject is considered as caduciary, and so accrues to the sovereign. Where the property of a subject is contested, the lawful possessor is entitled to continue his possession, till the point of right be discussed; and, if he has lost it by force or stealth, the judge will upon summary application, immediately restore it to him.

15. Where a possessor has several rights in his person, affecting the subject possessed, the general rule is, that he may ascribe his possession to which of them he pleases; but one cannot prescribe his possession to a title other than that on which it commenced, in prejudice of him from whom his title flowed.

Sect. II. *Of Heritable and Moveable Rights.*

clxxii. 1. For the better understanding the doctrine of this title, it must be known, that by the law of Scotland, and indeed of most nations of Europe since the introduction of feus, wherever there are two or more in the same degree of consanguinity to one who dies intestate, and who are not all females, such rights belonging to the deceased as are either properly feudal, or have any resemblance to feudal rights, descend wholly to one of them, who is considered as his proper heir; the others, who have the name of next of kin or executors, must be contented with that portion of the estate which is of a more perishable nature. Hence has arisen the division of rights to be explained under this title: the subjects descending to the heir are styled *heritable*; and those that fall to the next of kin *moveable*.

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Division of rights into heritable and moveable. 2. All rights of, or affecting lands, under which are comprehended houses, mills, fishings, teinds; and all rights of subjects that are *fundo annexa*, whether completed by seisin or not, are heritable *ex sua natura*. On the other hand, every thing that moves itself or can be moved, and in general whatever is not united to land, is moveable; as household furniture, corns, cattle, cash, arrears of rent and of interest, even though they should be due on a right of annualrent; for though the arrears last mentioned are secured on land, yet being presently payable, they are considered as cash.

3. Debts, (*nomina debitorum*), when due by bill, promissory note, or account, are moveable. When constituted by bond, they do not all fall under any one head; but are divided into heritable and moveable, by the following rules. All debts constituted by bond bearing an obligation to infeft the creditor in any heritable subject in security of the principal sum and annualrent, or annualrent only, are heritable; for they not only carry a yearly profit, but are secured upon land.

4. Bonds merely personal, though bearing a clause of interest, are, by act 1661, declared to be moveable as to succession; i. e. they go, not to the heir, but to the next of kin or executors; but they are heritable with respect to the fisk, and to the rights of husband and wife; that is, though by the general rule, moveable rights fall under the communion of goods consequent upon marriage, and the moveables of denounced persons fall to the crown or fisk by single escheat, yet such bonds do neither, but are heritable in both respects.

5. Bonds taken payable to heirs and assignees, secluding executors, are heritable in all respects, from the destination of the creditor. But a bond, which is made payable to heirs, without mention of executors, descends, not to the proper heir in heritage, though heirs are mentioned in the bond, but to the executor; for the word *heir*, which is a generic term, points out him who is to succeed by law in the right; and the executor, being the heir *in mobilibus*, is considered as the person to whom such bond is taken payable. But where a bond is taken to heirs male, or to a series of heirs, one after another, such a bond is heritable, because its destination necessarily excludes executors.

How moveable rights become heritable. 6. Subjects originally moveable become heritable, (1.) By the proprietor's destination. Thus a jewel, or any other moveable subject, may be provided to the heir, from the right competent to every proprietor to settle his property on whom he pleases. (2.) Moveable rights may become heritable, by the supervening of an heritable security: Thus, a sum due by a personal bond becomes heritable, by the creditor's accepting

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ing an heritable right for securing it, or by adjudging upon it.

7. Heritable rights do not become moveable by accessory moveable securities; the heritable right being in such case the *jus nobilius*, which draws the other after it.

Rights partly heritable, partly moveable.

8. Certain subjects partake, in different respects, of the nature both of heritable and moveable. Personal bonds are, by the above cited act 1661, moveable in respect of succession; but heritable as to the fisk, and the rights of husband and wife. All bonds, whether merely personal, or even heritable, on which no seisin has followed, may be affected at the suit of creditors, either by abjudication, which is the diligence proper to heritage, or by arrestment, which is peculiar to moveables. Bonds secluding executors, though they descend to the creditor's heir, are payable by the debtor's executors, without relief against the heir; since the debtor's succession cannot be affected by the destination of the creditor.

What period makes a subject heritable or moveable.

9. All questions, whether a right be heritable or moveable, must be determined according to the condition of the subject at the time of the ancestor's death. If it was heritable at that period, it must belong to the heir; if moveable, it must fall to the executor, without regard to any alterations that may have affected the subject in the intermediate period between the ancestor's death and the competition.

I. HERITABLE RIGHTS.

SECT. III. *Of the Constitution of Heritable Rights by Charter and Seisin.*

clxiv. Origin of the feudal law.

1. Heritable rights are governed by the feudal law, which owed its origin, or at least its first improvements, to the Longobards; whose kings, upon having penetrated into Italy, the better to preserve their conquests, made grants to their principal commanders of great part of the conquered provinces, to be again subdivided by them among the lower officers, under the conditions of fidelity and military service.

2. The feudal constitutions and usages were first reduced into writing about the year 1150, by two lawyers of Milan, under the title of *Consuetudines Feudorum*. None of the German emperors appear to have expressly confirmed this collection by their authority: but it is generally agreed, that it had their tacit approbation, and was considered as the customary feudal law of all the countries subject to the empire. No other country has ever acknowledged these books for their law; but each state has formed to itself such a system of feudal rules, as best agreed with the genius of its own constitution. In feudal questions, therefore, we are governed, in the first place, by our own statutes and customs; where these fail us, we have regard to the practice of neighbouring countries, if the genius of their law appears to be the same with ours; and should the question still remain doubtful, we may have recourse to those written books of the feus, as to the original plan on which all feudal systems have proceeded.

Definition of feus.

3. This military grant got the name, first of *beneficium*, and afterwards of *feudum*; and was defined a gratuitous right to the property of lands, made under the conditions of fealty and military service, to be performed to the granter by the receiver; the radical right of the lands still remaining in the granter. Under lands, in this definition, are comprehended all rights or subjects so connected with land, that they are deemed a part thereof; as houses, mills, fishings, jurisdictions, patronages, &c. Though feus in their original nature were gratuitous, they soon became the subject of commerce; services of a civil or religious kind were frequently substituted in place of military; and now, of a long time, services of every kind have been entirely dispensed with in certain feudal tenures. He who makes the grant is called the *superior*, and he who receives it the *vassal*. The subject of the *grant* is commonly called the *feu*; though that word is at other times, in our law, used to signify one particular tenure. (See Sect. iv. 2.). The interest retained by the superior in the feu is styled *dominium directum*, or the superiority; and the interest acquired by the vassal, *dominium utile*, or the property. The word *fee* is promiscuously applied to both.

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Superior and vassals.

4. Allodial goods are opposed to feus; by which are understood goods enjoyed by the owner, independent of a superior. All moveable goods are allodial; lands only are so when they are given without the condition of fealty or homage. By the feudal system, the sovereign, who is the fountain of feudal rights, reserves to himself the superiority of all the lands of which he makes the grant; so that, with us, no lands are allodial, except those of the king's own property, the superiorities which the king reserves in the property-lands of his subjects, and manses and glebes, the right of which is completed by the presbytery's designation, without any feudal grant.

Allodial goods.

Who can grant feudal rights.

5. Every person who is in the right of an immoveable subject, provided he has the free administration of his estate, and is not debarred by statute, or by the nature of his right, may dispose of it to another. Nay, a vassal, though he has only the *dominium utile*, can subfeu his property to a subvassal by a subaltern right, and thereby raise a new *dominium directum* in himself, subordinate to that which is in his superior; and so *in infinitum*. The vassal who thus subfeus is called the subvassal's immediate superior, and the vassal's superior is the subvassal's mediate superior.

Who can receive them.

6. All persons who are not disabled by law, may acquire and enjoy feudal rights. Papists cannot purchase a land estate by any voluntary deed. Aliens, who owe allegiance to a foreign prince, cannot hold a feudal right without naturalization: and, therefore, where such privilege was intended to be given to favoured nations or persons, statutes of naturalization were necessary, either general or special; or, at least, letters of naturalization by the sovereign.

What subjects can be granted in feu.

7. Every heritable subject capable of commerce, may be granted in feu. From this general rule are excepted, 1. The annexed property of the crown, which is not alienable without a previous dissolution in parliament. 2. Tailzied lands, which are devised under condition that they shall not be aliened. 3. An estate *in hæreditate jacente* cannot be effectually aliened by the heir-apparent (i. e. not entered); but such alienation becomes effectual upon his entry, the supervening

right

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right accruing in that case to the purchaser; which is a rule applicable to the alienation of all subjects not belonging to the vender at the time of the sale.

Feudal charter.

8. The feudal right, or, as it is called, *investiture*, is constituted by charter and seisin. By the charter, we understand that writing which contains the grant of the feudal subject to the vassal, whether it be executed in the proper form of a charter, or of a disposition. Charters by subject superiors are granted, either, 1. *A me de superiore meo*, when they are to be holden, not of the granter himself, but of his superior. This sort is called a *public holding*, because vassals were in ancient times publicly received in the superior's court before the *pares curiæ* or co-vassals. Or, 2. *De me*, where the lands are to be holden of the granter. These were called sometimes *base rights* from *bas*, *lower*: and sometimes *private*, because, before the establishment of our records, they were easily concealed from third parties; the nature of all which will be more fully explained, Sect. vii. An original charter is that by which the fee is first granted: A charter by progress is a renewed disposition of that fee to the heir or assignee of the vassal. All doubtful clauses in charters by progress ought to be construed agreeably to the original grant; and all clauses in the original charter are understood to be implied in the charters by progress, if there be no express alteration.

Its constituent parts.

9. The first clause in an original charter, which follows immediately after the name and designation of the granter, is the narrative or recital, which expresses the causes inductive of the grant. If the grant be made for a valuable consideration, it is said to be *onerous*; if for love and favour, *gratuitous*. In the dispositive clause of a charter, the subjects made over are described either by special boundaries or march stones, (which is called a *bounding charter*), or by such other characters as may sufficiently distinguish them. A charter regularly carries right to no subjects but what are contained in this clause, though they should be mentioned in some other clause of the charter. It has been however found, that a right to salmon fishing was carried by a clause *cum piscariis* in the *tenendas* of a charter, the same having been followed with possession.

10. The clause of *tenendas* (from its first words *tenendas prædictas terras*) expresses the particular tenure by which the lands are to be holden. The clause of *reddendo* (from the words *reddendo inde annuatim*) specifies the particular duty or service which the vassal is to pay or perform to the superior.

Warrandice.

11. The clause of *warrandice* is that by which the granter obliges himself that the right conveyed shall be effectual to the receiver. Warrandice is either *personal* or *real*. *Personal* warrandice, where the granter is only bound personally, is either, 1. *Simple*, that he shall grant no deed in prejudice of the right; and this sort, which is confined to future deeds, is implied even in donations. 2. Warrandice *from fact and deed*, by which the granter warrants that the right neither has been, nor shall be, hurt by any fact of his. Or, 3. *Absolute* warrandice *contra omnes mortales*, whereby the right is warranted against all legal defects in it which may carry it off from the receiver either wholly or in part. Where a sale of land proceeds upon an *onerous* cause, the granter is liable in absolute warrandice, though no warrandice be expressed; but in assignations to debts or decrees, no higher warrandice than from fact and deed is implied.

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12. Gratuitous grants by the crown imply no warrandice; and though warrandice should be expressed, the clause is ineffectual, from a presumption that it has crept in by the negligence of the crown's officers. But where the crown makes a grant, not *jure coronæ*, but for an adequate price, the sovereign is in the same case with his subjects.

Effects of warrandice.

13. Absolute warrandice, in case of eviction, affords an action to the grantee against the granter, for making up to him all that he shall have suffered through the defect of the right; and not simply for his indemnification, by the granter's repayment of the price to him. But as warrandice is penal, and consequently *stricti juris*, it is not easily presumed, nor is it incurred from every light servitude that may affect the subject; far less does it extend to burdens which may affect the subject posterior to the grant, nor to those imposed by public statute, whether before or after, unless specially warranted against.

Real warrandice.

14. *Real* warrandice is either, 1. *Express*, whereby, in security of the lands principally conveyed, other lands, called *warrandice lands*, are also made over, to which the receiver may have recourse in case the principal lands be evicted. Or, 2. *Tacit*, which is constituted by the exchange or excambion of one piece of ground with another; for, if the lands exchanged are carried off from either of the parties, the law itself, without any paction, gives that party immediate recourse upon his own first lands, given in exchange for the lands evicted.

Excambion.

Precept of seisin.

15. The charter concludes with a *precept of seisin*, which is the command of the superior granter of the right to his bailie, for giving seisin or possession to the vassal, or his attorney, by delivering to him the proper symbols. Any person, whose name may be inserted in the blank left in the precept for that purpose, can execute the precept as bailie; and whoever has the precept of seisin in his hands, is presumed to have a power of attorney from the vassal for receiving possession in his name.

Instrument of seisin.

16. A seisin is the instrument or attestation of a notary, that possession was actually given by the superior or his bailie, to the vassal or his attorney; which is considered as so necessary a solemnity, as not to be suppliable, either by a proof of natural possession, or even of the special fact that the vassal was duly entered to the possession by the superior's bailie.

Symbols used in seisins.

17. The symbols by which the delivery of possession is expressed, are, for lands, earth and stone; for rights of annualrent payable forth of land, it is also earth and stone, with the addition of a penny money: for parsonage teinds, a sheaf of corn; for jurisdictions, the book of the court; for patronages, a psalm book, and the keys of the church; for fishings, net and coble; for mills, clap and happer, &c. The seisin must be taken upon the ground of the lands, except where there is a special dispensation in the charter from the crown.

Registration of seisins.

18. All seisins must be registered within 60 days after their date, either in the general register of seisins at Edinburgh, or in the register of the particular shire appointed by the act 1617; which, it must be observed,

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ed, is not, in every case, the shire within which the lands lie. Burgage seisins are ordained to be registered in the books of the borough.

19. Unregistered seisins are ineffectual against third parties, but they are valid against the granters and their heirs. Seisins regularly recorded, are preferable not according to their own dates, but the dates of their registration.

One seisin serves in contiguous and in united tenements.

20. Seisin necessarily supposes a superior by whom it is given; the right therefore which the sovereign, who acknowledges the superior, has over the whole lands of Scotland, is constituted *jure coronæ* without seisin. In several parcels of land that lie contiguous to one another, one seisin serves for all, unless the right of the several parcels be either holden of different superiors, or derived from different authors, or enjoyed by different tenures under the same superior. In discontiguous lands, a separate seisin must be taken on every parcel, unless the sovereign has united them into one tenandry by a charter of union; in which case, if there is no special place expressed, a seisin taken on any part of the united lands will serve for the whole, even though they be situated in different shires. The only effect of union is, to give the discontiguous lands the same quality as if they had been contiguous or naturally united; union, therefore, does not take off the necessity of separate seisins, in lands holden by different tenures, or the rights of which flow from different superiors, these being incapable of natural union.

Barony implies union.

21. The privilege of barony carries a higher right than union does, and consequently includes union in it as the lesser degree. This right of barony can neither be given, nor transmitted, unless by the crown; but the quality of simple union, being once conferred on lands by the sovereign, may be communicated by the vassal to a subvassal. Though part of the lands united or erected into a barony be sold by the vassal to be holden *a me*, the whole union is not thereby dissolved: what remains unsold retains the quality.

A charter becomes real only after seisin.

22. A charter, not perfected by seisin, is a right merely personal, which does not transfer the property (see N° clxxiii. 1.); and a seisin of itself bears no faith without its warrant: It is the charter and seisin joined together that constitutes the feudal right, and secures the receiver against the effect of all posterior seisins, even though the charters on which they proceed should be prior to his.

All burdens must be inserted in the investiture.

23. No quality which is designed as a lien or real burden on a feudal right, can be effectual against singular successors, if it be not inserted in the investiture. If the creditors in the burden are not particularly mentioned, the burden is not real; for no perpetual unknown encumbrance can be created upon lands. Where the right itself is granted with the burden of the sum therein mentioned, or where it is declared void if the sum be not paid against a day certain, the burden is real; but where the receiver is simply obliged by his acceptance to make payment, the clause is effectual only against him and his heirs.

Sect. IV. *Of the several kinds of Holding.*

[clxv. Ward-holding.

1. Feudal subjects are chiefly distinguished by their different manners of holding, which were either *ward*, *blanch*, *feu*, or *burgage*. *Ward-holding*, (which is now abolished by 20 Geo. II. c. 50.) was that which was granted for military service. Its proper *reddendo* was *services*, or *services used and wont*; by which last was meant the performance of service whenever the superior's occasions required it. As all feudal rights were originally held by this tenure, ward-holding was *in dubio* presumed. Hence, though the *reddendo* had contained some special service or yearly duty, the holding was presumed ward, if another holding was not particularly expressed.

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Feu-holding.

2. *Feu*-holding is that whereby the vassal is obliged to pay to the superior a yearly rent in money or grain, and sometimes also in services proper to a farm, as ploughing, reaping, carriages for the superior's use, &c. *nomine feudi firmæ*. This kind of tenure was introduced for the encouragement of agriculture, the improvement of which was considerably obstructed by the vassal's obligation to military service. It appears to have been a tenure known in Scotland as far back as *leges burgorum*.

Blanch-holding.

3. *Blanch*-holding is that whereby the vassal is to pay to the superior an elusory yearly duty, as a penny money, a rose, a pair of gilt spurs, &c. merely in acknowledgement of the superiority, *nomine albæ firmæ*. This duty, where it is a thing of yearly growth, if it be not demanded within the year, cannot be exacted thereafter; and where the words *si petatur tantum* are subjoined to the *reddendo*, they imply a release to the vassal, whatever the quality of the duty may be, if it is not asked within the year.

Burgage-holding.

4. *Burgage*-holding is that, by which boroughs-royal hold of the sovereign the lands which are contained in their charters of erection. This, in the opinion of *Craig*, does not constitute a separate tenure, but is a species of ward-holding; with this speciality, that the vassal is not a private person, but a community: and indeed, watching and warding, which is the usual service contained in the *reddendo* of such charters, might be properly enough said, some centuries ago, to have been of the military kind. As the royal borough is the king's vassal, all burgage-holders hold immediately of the crown: the magistrates, therefore, when they receive the resignation of the particular burgesses, and give seisin to them, act, not as superiors, but as the king's bailies specially authorized thereto.

Mortification.

5. Feudal subjects, granted to churches, monasteries, or other societies for religious or charitable uses, are said to be mortified, or granted *ad manum mortuam*; either because all casualties must necessarily be lost to the superior, where the vassal is a corporation, which never dies; or because the property of these subjects is granted to a dead hand, which cannot transfer it to another. In lands mortified in times of Popery to the church, whether granted to prelates for the behoof of the church, or *in puram eleemosynam*; the only services prestable by the vassals were prayers, and singing of masses for the souls of the deceased, which approaches nearer to blanch-holding than ward. The purposes of such grants having been, upon the Reformation, declared superstitious, the lands mortified were annexed to the crown: but mortifications to universities, hospitals, &c. were not affected by that annexation; and lands may, at this day, be mortified to any lawful purpose, either by blanch or by feu-holding:

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ing: But as the superior must lose all the casualties of superiority in the case of mortifications to churches, universities, &c. which, being considered as a corporation, never dies; therefore lands cannot be mortified without the superior's consent. *Craig*, lib. i. dieg. 11. § 21.

clxvi. SECT. V. *Of the Casualties due to the Superior.*

Fixed rights of superiority.

1. The right of the superior continues unimpaired, notwithstanding the feudal grant, unless in so far as the *dominium utile*, or property, is conveyed to his vassal. The superiority carries a right to the services and annual duties contained in the *reddendo* of the vassal's charter. The duty payable by the vassal is a *debitum fundi*, i. e. it is recoverable, not only by a personal action against himself, but by a real action against the lands.

Casual rights.

2. Besides the constant fixed rights of superiority, there are others which, because they depend upon uncertain events, are called *casualties*.

Ward-holding.

3. The casualties proper to a ward-holding, while that tenure subsisted, were *ward*, *recognition*, and *marriage*, which it is now unnecessary to explain, as by the late statutes 20 and 25 Geo. II. for abolishing ward-holdings, the tenure of the lands holden ward of the crown or prince is turned into *blanch*, for payment of one penny Scots yearly, *si petatur tantum*; and the tenure of those holden of subjects into *feu*, for payment of such yearly feu duty in money, victual, or cattle, in place of all services, as should be fixed by the court of session. And accordingly that court, by act of sederunt Feb. 8. 1749, laid down rules for ascertaining the extent of these feu duties. A full history of their casualties, and of the effects consequent upon their falling to the superior, will be found in Erskine's large Institute, B. 2. t. 5. § 5. *et sequen.*; to which the reader is referred.

Feu-holding.

4. The only casualty, or rather forfeiture, proper to feu-holding, is the loss or tinsel of the feu right, by the neglect of payment of the feu duty for two full years. Yet where there is no conventional irritancy in the feu right, the vassal is allowed to purge the legal irritancy at the bar; that is, he may prevent the forfeiture, by making payment before sentence; but where the legal irritancy is fortified by a conventional, he is not allowed to purge, unless where he can give a good reason for the delay of payment.

Non entry.

5. The casualties common to all holdings are *non-entry*, *relief*, *liferent*, *escheat*, *disclamation*, *and pur-presture*. NON-ENTRY is that casualty which arises to the superior out of the rents of the feudal subject, through the heirs neglecting to renew the investiture after his ancestor's death. The superior is entitled to this casualty, not only where the heir has not obtained himself infeft, but where his retour or infeftment is set aside upon nullities. The heir, from the death of the ancestor, till he be cited by the superior in a process of a general declarator of non-entry, loses only the retoured duties of his lands, (see next parag.); and he forfeited these, though his delay should not argue any contempt of the superior, because the casualty is considered to fall, as a condition implied in the feudal right, and not as a penalty of transgression: but reasonable excuses are now admitted to liberate even from the retoured duties before citation.

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Retoured duties.

6. For understanding the nature of retoured duties, it must be known, that there was anciently a general valuation of all the lands in Scotland, designed both for regulating the proportion of public subsidies, and for ascertaining the quantity of non-entry and relief duties payable to the superior; which appears, by a contract between K. R. Bruce and his subjects *anno* 1327, preserved in the library of the Faculty of Advocates, to have been settled at least as far back as the reign of Alexander III. This valuation became in the course of time, by the improvement of agriculture, and perhaps also by the heightening of the nominal value of our money, from the reign of Robert I. downwards to that of James III. much too low a standard for the superior's casualties; wherefore, in all services of heirs, the inquest came at last to take proof likewise of the present value of the lands contained in the brief (*quantum nunc valent*), in order to fix these casualties. The first was called the *old*, and the other the *new*, *extent*. Though both extents were ordained to be specified in all retours made to the chancery upon brieves of inquest; yet by the appellation of retoured duties in a question concerning casualties, the new extent is always understood. The old extent continued the rule for leveying public subsidies, till a tax was imposed by new proportions, by several acts made during the usurpation. By two acts of Cromwell's parliament, held at Westminster in 1656, imposing taxations in Scotland, the rates laid upon the several counties are precisely fixed. The subsidy granted by the act of convention 1667 was levied on the several counties, nearly in the same proportions that were fixed by the usurper in 1656; and the sums to which each county was subjected were subdivided among the individual landholders in that county, according to the valuations already settled, or that should be settled by the commissioners appointed to carry that act into execution. The rent fixed by these valuations is commonly called the *valued rent*; according to which the land tax and most of the other public burdens, have been levied since that time.

Old and new extents.

Valued rent.

7. In feu-holdings, the feu duty is retoured as the rent, because the feu duty is presumed to be, and truly was at first, the rent. The superior therefore of a feu-holding gets no non-entry, before citation in the general declarator; for he would have been entitled to the yearly feu duty, though the fee had been full, i. e. though there had been a vassal infeft in the lands. The superior of teinds gets the fifth part of the retoured duty as non-entry, because the law considers teinds to be worth a fifth part of the rent. In rights of annualrent which are holden of the granter, the annualrenter becomes his debtor's vassal; and the annualrent contained in the right is retoured to the blanch or other duty contained in the right before declarator.

8. It is because the retoured duty is the presumed rent, that the non-entry is governed by it. If, therefore, no retour of the lands in non-entry can be produced, nor any evidence brought of the retoured duty, the superior is entitled to the real, or at least to the valued, rent, even before citation. In lands formerly holden ward of the king, the heir, in place of the retoured

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toured duties, is subjected only to the annual payment of one per cent. of the valued rent.

9. The heir, after he is cited by the superior in the action of general declarator, is subjected to the full rents till his entry, because his neglect is less excusable after citation. The decree of declarator, proceeding on this action, entitles the superior to the possession, and gives him right to the rents downward from the citation. As this sort of non-entry is properly penal, our law has always restricted it to the retoured duties, if the heir had a probable excuse for not entering.

In what cases non-entry is not due.

10. Non-entry does not obtain in burgage holdings, because the incorporation of inhabitants holds the whole incorporated subjects of the king; and there can be no non-entry duty in lands granted to communities, because there the vassal never dies. This covers the right of particulars from non-entry: for if non-entry be excluded with regard to the whole, it cannot obtain with regard to any part. It is also excluded, as to a third of the lands, by the terce, during the widow's life; and as to the whole of them, by the courtesy during the life of her husband. But it is not excluded by a precept of seisin granted to the heir till seisin be taken thereupon.

Relief.

11. RELIEF is that casualty which entitles the superior to an acknowledgment or consideration from the heir for receiving him as vassal. It is called *relief*, because by the entry of the heir, his fee is relieved out of the hands of the superior. It is not due in feu-holdings flowing from subjects, unless where it is expressed in the charter by a special clause for doubling the feu duty at the entry of an heir; but in feu rights holden of the crown, it is due, though there should be no such clause in the charter. The superior can recover this casualty, either by a poinding of the ground, as a *debitum fundi*, or by a personal action against the heir. In blanch and feu-holdings, where this casualty is expressly stipulated, a year's blanch or feu duty is due in name of *relief*, beside the current year's duty payable in the name of *blanch* or *feu farm*.

Escheat.

12. ESCHEAT (from *escheoir*, to *happen* or *fall*) is that forfeiture which falls through a person's being denounced rebel. It is either *single* or *liferent*. *Single escheat*, though it does not accrue to the superior, must be explained in this place, because of its coincidence with liferent.

Letters of horning.

13. After a debt is constituted either by a formal decree, or by registration of the ground of debt, which to the special effect of execution, is in law accounted a decree: the creditor may obtain letters of horning, issuing from the signet, commanding messengers to charge the debtor to pay or perform his obligation, within a day certain. Where horning proceeds on a formal decree of the session, the time indulged by law to the debtor is fifteen days; if upon a decree of the commission of teinds or admiral, it is ten; and upon the decrees of all inferior judges, fifteen days. Where it proceeds on a registered obligation, which specifies the number of days, that number must be the rule; and, if no precise number be mentioned, the charge must be given in fifteen days, which is the term of law, unless where special statute interposes; as in bills, upon which the debtor may be charged on six days.

14. The messenger must execute these letters (and indeed all summonses against the debtor, either personally or at his dwelling house; and, if he get not access to the house, he must strike six knocks at the gate, and thereafter affix to it a copy of his execution. If payment be not made within the days mentioned in the horning, the messenger, after proclaiming three oyesses at the market cross of the head borough of the debtor's domicile, and reading the letters there, blows three blasts with a horn, by which the debtor is understood to be proclaimed rebel to the king for contempt of his authority; after which, he must affix a copy of the execution to the market cross: This is called the *publication of the diligence*, or a *denunciation at the horn*. Where the debtor is not in Scotland, he must be charged on sixty days, and denounced at the market cross of Edinburgh, and pier and shore of Leith.

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Denunciation.

15. Denunciation, if registered within 15 days, either in the sheriff's books, or in the general register, drew after it the rebel's single escheat, i. e. the forfeiture of his moveables to the crown. Persons denounced rebels have not a *persona standi in judicio*; they can neither sue nor defend in any action. But this incapacity being unfavourable, is personal to the rebel, and cannot be pleaded against his assignee.

Consequences thereof.

16. Persons cited to the court of justiciary may be also denounced rebels, either for appearing there with too great a number of attendants; or, if they fail to appear, they are declared fugitives from the law. Single escheat falls, without denunciation, upon sentence of death pronounced in any criminal trial; and, by special statute, upon one's being convicted of certain crimes, though not capital; as perjury, bigamy, deforcement, breach of arrestment, and usury. By the late act abolishing ward-holdings, the casualties both of single and liferent escheat are discharged, when proceeding upon denunciation for civil debts; but they still continue, when they arise from criminal causes. All moveables belonging to the rebel at the time of his rebellion, (whether proceeding upon denunciation, or sentence in a criminal trial), and all that shall be afterwards acquired by him until relaxation, fall under single escheat. Bonds bearing interest, because they continue heritable *quoad fiscum*, fall not under it, nor such fruits of heritable subjects as became due after the term next ensuing the rebellion, these being reserved for the liferent escheat.

Denunciation in criminal cases.

17. The king never retains the right of eschcat to himself, but makes it over to a donatory, whose gift is not perfected till, upon an action of general declarator, it be declared that the rebel's escheat has fallen to the crown by his denunciation, and that the right of it is now transferred to the pursuer by the gift in his favour. Every creditor therefore of the rebel, whose debt was contracted before rebellion, and who has used diligence before declarator, is preferable to the donatory. But the escheat cannot be affected by any debt contracted, or by any voluntary deed of the rebel after rebellion.

Letters of relaxation.

18. The rebel, if he either pays the debt charged for, or suspends the diligence, may procure letters of relaxation from the horn, which, if published in the same place, and registered 15 days thereafter in the same register with the denunciation, have the effect to restore

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restore him to his former state; but they have no retrospect as to the moveables already fallen under escheat, without a special clause for that purpose.

Liferent escheat.

19. The rebel, if he continues unrelaxed for year and day after rebellion, is construed to be civilly dead: and therefore, where he holds any feudal right, his superiors, as being without a vassal, are entitled, each of them, to the rents of such of the lands belonging to the rebel as hold of himself, during all the days of the rebel's natural life, by the casualty of LIFERENT ESCHEAT; except where the denunciation proceeds upon treason or proper rebellion, in which case the liferent falls to the king.

20. It is that estate only, to which the rebel has a proper right of liferent in his own person, that falls under his liferent escheat.

21. Though neither the superior nor his donatory can enter into possession in consequence of this casualty, till decree of declarator; yet that decree, being truly declaratory, has a retrospect, and does not so properly confer a new right, as declare the right formerly constituted to the superior, by the civil death of his vassal. Hence, all charters or heritable bonds, though granted prior to the rebellion, and all adjudications, though led upon debts contracted before that period, are ineffectual against the liferent escheat, unless seisin be taken thereon within year and day after the granter's rebellion.

22. Here, as in single escheat, no debt contracted after rebellion can hurt the donatory, nor any voluntary right granted after that period, though in security or satisfaction of prior debts.

Disclamation.

23. DISCLAMATION is that casualty whereby a vassal forfeits his whole feu to his superior, if he disowns or disclaims him, without ground, as to any part of it.

Purpresture.

PURPRESTURE draws likewise a forfeiture of the whole feu after it; and is incurred by the vassal's encroaching upon any part of his superior's property, or attempting, by building, enclosing, or otherwise, to make it his own. In both these feudal delinquencies, the least colour of excuse saves the vassal.

Signatures.

24. All grants from the crown, whether charters, gifts of casualties, or others, proceed on signatures which pass the signet. When the king resided in Scotland, all signatures were superscribed by him; but, on the accession of James VI. to the crown of England, a cachet or seal was made, having the king's name engraved on it, in pursuance of an act of the privy council, April 4. 1603, with which all signatures were to be afterwards sealed, that the lords of exchequer were empowered to pass; and these powers are transferred to the court of exchequer, which was established in Scotland after the union of the two kingdoms in 1707. Grants of higher consequence, as remission of crimes, gifts proceeding upon forfeiture, and charters of *novodamus*, must have the king's sign manual for their warrant.

Seals.

25. If lands holding of the crown were to be conveyed, the charter passed, before the union of the kingdoms in 1707, by the great seal of Scotland; and now by a seal substituted in place thereof. Grants of church dignities, during Episcopacy, passed also by the great seal; and the commissions to all the principal officers of the crown, as justice clerk, king's advocate, solicitor, &c. do so at this day. All rights which subjects may transmit by simple assignation, the king transmits by the privy seal: as gifts of moveables, or of casualties that require no seisin. The quarter seal, otherwise called the *testimonial of the great seal*, is appended to gifts of tutory, commissions of brieves issuing from the chancery, and letters of presentation to lands holding of a subject, proceeding upon forfeiture, bastardy, or *ultimus hæres*.

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Their use.

26. Seals are to royal grants what subscription is to rights derived from subjects, and give them authority; they serve also as a check to gifts procured (*subreptione vel obreptione*) by concealing the truth, or expressing a falsehood; for, where this appears, the gift may be stopped before passing the seals, though the signature should have been signed by the king. All rights passing under the great or privy seal must be registered in the registers of the great or privy seal *respective*, before appending the seal.

SECT. VI. *Of the Right which the Vassal acquires by getting the Feu.* clxvii.

Dominium utile.

1. Under the *dominium utile* which the vassal acquires by the feudal right, is comprehended the property of whatever is considered as part of the lands, whether of houses, woods, enclosures, &c. above ground; or of coal, limestone, minerals, &c. under ground. Mills have, by the generality of our lawyers, been deemed a separate tenement, and so not carried by a charter or disposition, without either a special clause conveying mills, or the erection of the lands into a barony. Yet it is certain, that if a proprietor builds a mill on his own lands, it will be carried by his entail, or by a retour, without mentioning it, although the lands are not erected into a barony. If the lands disponed be astricted, or thirled to another mill, the purchaser is not allowed to build a new corn mill on his property, even though he should offer security that it shall not hurt the thirle; which is introduced for preventing daily temptations to fraud.

2. Proprietors are prohibited to hold dove-cots, unless their yearly rent, lying within two miles thereof, extend to ten chalders of victual. A purchaser of lands, with a dove-cot, is not obliged to pull it down, though he should not be qualified to build one; but, if it becomes ruinous, he cannot rebuild it. The right of brewing, though not expressed in the grant, is implied in the nature of property; as are also the rights of fishing, fowling, and hunting, in so far as they are not restrained by statute.

Regalia.

3. There are certain rights naturally consequent on property, which are deemed to be preserved by the crown as *regalia*; unless they be specially conveyed. Gold and silver mines are of this sort; the first universally; and the other, where three halfpennies of silver can be extracted from the pound of lead, by act 1424, (three halfpennies at that time was equal to about two shillings five pennies of our present Scots money). These were by our ancient law annexed to the crown; but they are now dissolved from it; and every proprietor is entitled to a grant of the mines within his own lands, with the burden of delivering to the crown a tenth of what shall be brought up.

4. Salmon fishing is likewise a right understood to be reserved by the crown, if it be not expressly granted:

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but 40 years possession thereof, where the lands are either erected into a barony, or granted with the general clause of fishiugs, establishes the full right of the salmon fishing in the vassal. A charter of lands within which any of the king's forests lie, does not carry the property of such forest to the vassal.

Res publicæ.

5. All the subjects which were by the Roman law accounted *res publicæ*, as rivers, highways, ports, &c. are, since the introduction of feus, held to be *inter regalia*, or *in patrimonio principis;* and hence encroachment upon a highway is said to infer purpresture. No person has the right of a free port without a special grant, which implies a power in the grantee to levy anchorage and shore dues, and an obligation upon him to uphold the port in good condition. In this class of things, our forefathers reckoned fortalices, or small places of strength, originally built for the defence of the country, either against foreign invasions or civil commotions; but these now pass with the lands in every charter.

Pertinents.

6. The vassal acquires right by his grant, not only to the lands specially contained in the charter, but to those that have been possessed 40 years as pertinent thereof. But, 1. If the lands in the grant are marked out by special limits, the vassal is circumscribed by the tenor of his own right, which excludes every subject without these limits from being pertinent of the lands. 2. A right possessed under an express infeftment is preferable, *cæteris paribus*, to one possessed only as pertinent. 3. Where neither party is infeft *per expressum*, the mutual promiscuous possession by both, of a subject as pertinent, resolves into a commonty of the subject possessed: but if one of the parties has exercised all the acts of property of which the subject was capable, while the possession of the other was confined to pasturage only, or to casting feal and divot, the first is to be deemed sole proprietor, and the other to have merely a right of servitude.

Privileges of barony.

7. As barony is a *nomen universitatis*, and unites the several parts contained in it into one individual right, the general conveyance of a barony carries with it all the different tenements of which it consists, though they should not be specially enumerated (and this holds, even, without erection into a barony, in lands that have been united under a special name). Hence, likewise, the possession by the vassal of the smallest part of the barony lands preserves to him the right of the whole.

Tack or lease.

8. The vassal is entitled, in consequence of his property, to levy the rents of his own lands, and to recover them from his tenants by an action for rent before his own court; and from all other possessors and intromitters, by an action of mails and duties before the sheriff. He can also remove from his lands, tenants who have no leases; and he can grant tacks or leases to others. A tack is a contract of location, whereby the use of land, or any other immoveable subject, is set to the lessee or tacksman for a certain yearly rent, either in money, the fruits of the ground, or services. It ought to be reduced into writing, as it is a right concerning lands: tacks, therefore, that are given verbally, to endure for a term of years, are good against neither party for more than one year. An obligation to grant a tack is as effectual against the granter as a formal tack. A liferenter having a temporary property in the fruits, may grant tacks to endure for the term of his own liferent.

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9. The tacksman's right is limited to the fruits which sprung up annually from the subject set, either naturally, or by his own industry; he is not therefore entitled to any of the growing timber above ground, and far less to the minerals, coal, clay, &c. under ground, the use of which consumes the substance. Tacks are, like other contracts, personal rights in their own nature; and consequently ineffectual against singular successors in the lands; but, for the encouragement of agriculture they were, by act 1449, declared effectual to the tacksman for the full time of their endurance, into whose hands soever the lands might come.

10. To give a written tack the benefit of this statute, it must mention the special tack duty payable to the proprietor, which, though small, if it be not elusory, secures the tacksman; and it must be followed by possession, which supplies the want of a seisin. If a tack does not express the term of entry, the entry will commence at the next term after its date, agreeable to the rule, *Quod pure debetur, præsenti die debetur.* If he does not mention the ish, i. e. the term at which it is to determine, it is good for one year only; but, if the intention of parties to continue it for more than one year, should appear from any clause in the tack, (e. g. if the tacksman should be bound to certain annual prestations), it is sustained for two years as the *minimum.* Tacks granted to perpetuity, or with an indefinite ish, have not the benefit of the statute. Tacks of houses within borough do not fall within this act, it being customary to let these from year to year.

Tacks are *stricti juris.*

11. Tacks necessarily imply a *delectus personæ*, a choice by the setter of a proper person for his tenant. Hence the conveyance of a tack which is not granted to assignees, is ineffectual without the landlord's consent. A right of tack, though it be heritable, falls under the *jus mariti*, because it cannot be separated from the labouring cattle and implements of tillage, which are moveable subjects. A tack, therefore, granted to a single woman, without the liberty of assigning, falls by her marriage; because the marriage, which is a legal conveyance thereof to the husband, cannot be annulled. This implied exclusion of assignees, is, however, limited to voluntary, and does not extend to necessary, assignments; as an adjudication of a tack by the tacksman's creditor: but a tack, expressly excluding assignees, cannot be carried even by adjudication. It was not a fixed point for a long time, whether a tenant could subset without consent of the landlord; but the court of session, in a case which occurred a few years ago, denied the power of subsetting in the tenant. Liferent tacks, because they import a higher degree of right in the tacksman than tacks for a definite term, may be assigned, unless assignees be specially excluded.

Tacit relocation.

12. If neither the setter nor tacksman shall properly discover their intention to have the tack dissolved at the term fixed for its expiration, they are understood, or presumed, to have entered into a new tack upon the same terms with the former, which is called *tacit relocation;* and continues till the landlord warns the tenant to remove, or the tenant renounces his tack to the landlord: this obtains also in the case of moveable tenants, who possess from year to year without written tacks.

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Law of Scotland. In judicial tacks, however, by the court of session, tacit relocation neither does nor can take place; for cautioners being interposed to these, they are loosed at the end of the tack: and therefore, where judicial tacksmen possess after expiry of the right, they are accountable as factors.

13. In tacks of land, the setter is commonly bound to put all the houses and office houses, necessary for the farm, in good condition at the tenant's entry; and the tenant must keep them and leave them so at his removal. But, in tacks of houses, the setter must not only deliver to the tenant the subject set, in tenantable repair at his entry, but uphold it in that repair during the whole years of the tack, unless it is otherwise covenanted betwixt the parties.

14. If the inclemency of the weather, inundation, or calamity of war, should have brought upon the crop an extraordinary damage (*plus quam tolerabile*), the landlord had, by the Roman law, no claim for any part of the tack-duty; if the damage was more moderate, he might exact the full rent. It is nowhere defined, what degree of sterility or devastation makes a loss *plus quam tolerabile;* but the general rule of the Roman law seems to be made ours. Tenants are not obliged to pay any public burdens to which they are not expressly bound by their tack, except mill services.

Desuetude of tacks. 15. Tacks may be evacuated during their currency, (1.) In the same manner as fen rights, by the tacksman's running in arrear of his tack duty for two years together. This irritancy may be prevented by the tenant's making payment at the bar before sentence. (2.) Where the tenant either runs in arrear of one year's rent, or leaves his farm uncultivated at the usual season; in which case he may, by act of sederunt 1756, be ordained to give security for the arrears, and for the rent of the five following crops, if the tack shall subsist so long; otherwise to remove, as if the tack were at an end. (3.) Tacks may be evacuated at any time by the mutual consent of parties.

16. The landlord, when he intends to remove a tenant whose tack is expiring, or who possesses without a tack, must, upon a precept signed by himself, warn the tenant forty days preceding the term of Whitsun-

Warning. day, at or immediately preceding the ish, personally or at his dwelling house, to remove at that term, with his family and effects. This precept must be also executed on the ground of the lands, and thereafter read in the parish church where the lands lie, after the morning service, and affixed to the most patent door thereof. Whitsunday, though it be a moveable feast, is, in questions of removing, fixed to the 15th of May. In warnings from tenements within borough, it is sufficient that the tenant be warned forty days before the ish of the tack, whether it be Whitsunday or Martinmas; and in these the ceremony of chalking the door is sustained as warning, when proceeding upon a verbal order from the proprietor.

17. This process of warning was precisely necessary for founding an action of removing against tenants, till the act of sederunt 1756, which leaves it in the option of the proprietor, either to use the former method, or to bring his action of removing before the judge ordinary: which, if it be called 40 days before the said term of Whitsunday, shall be held as equal to a warning. Where the tenant is bound, by an express clause of his tack, to remove at the ish without warning, such obligation is, by the said act, declared to be a sufficient warrant for letters of horning; upon which, if the landlord charge his tenant forty days before the said Whitsunday, the judge is authorized to eject him within six days after the term of removing expressed in the tack. Law of Scotland.

18. Actions of removing might, even before this act of sederunt, have been pursued without any previous warning, (1.) Against vicious possessors, i. e. persons who had seized the possession by force, or who, without any legal title, had intruded into it, after the last possessor had given it up. (2.) Against possessors who had a naked tolerance. (3.) Against tenants who had run in arrear of rent, during the currency of their tacks. (4.) Against such as had sold their lands, and yet continued to possess after the term of the purchaser's entry. Upon the same ground, warning was not required, in removings against possessors of liferented lands, after the death of the liferenter who died in the natural possession: but if he possessed by tenants, these tenants could not be disturbed in their possessions till the next Whitsunday, that they might have time to look out for other farms; but they might be compelled to remove at that term, by an action of removing, without warning. Actions of removing.

19. A landlord's title in a removing, let it be ever so lame, cannot be brought under question by a tenant whose tack flows immediately from him; but, if he is to insist against tenants not his own, his right must be perfected by infeftment, unless it he such as requires no infeftment; as terce, &c.

20. The defender, in a removing, must (by act 1555), before offering any defence which is not instantly verified, give security to pay to the setter the *violent profits*, if they should he awarded against him. These are so called, because the law considers the tenant's possession after the warning as violent. They are estimated, in tenements within borough, to double the rent; and in lands, to the highest profits the pursuer could have made of them, by possessing them either by a tenant or by himself. Violent profits.

21. If the action of removing shall be passed from, or if the landlord shall, after using warning, accept of rent from the tenant, for any term subsequent to that of the removal, he is presumed to have changed his mind, and tacit relocation takes place. All actions of removing against the principal or original tacksman, and decrees thereupon, if the order he used, which is set forth *supra* (17.), are, hy the act of sederunt 1756, declared to he effectual against the assignees to the tack or subtenants. Effect of warning not insisted in.

22. The landlord has, in security of his tack-duty, over and ahove the tenant's personal ohligation, a tacit pledge or hypothec, not only on the fruits, but on the cattle pasturing on the ground. The corn, and other fruits are hypothecated for the rent of that year whereof they are the crop; for which they remain affected, though the landlord should not use his right for years together. In virtue of this hypothec, the landlord is entitled to a preference over any creditor, though he has actually used a poinding; except in the special case, that the poinding is executed after the term of payment, when the landlord can appropriate the crop for his payment, the poinder in such case being obliged Hypothec.

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to leave as much on the ground as to satisfy the landlord's hypothec: and it was found by the court of session, that this right of the landlord is preferable even to a debt due to the crown, for which a writ of extent had been issued.

23. The whole cattle on the ground considered as a quantity, are hypothecated for a year's rent, one after another successively. The landlord may apply this hypothec for payment of the past year's rent, at any time within three months from the last conventional term of payment, after which it ceases for that year. As the tenant may increase the subject of this hypothec, by purchasing oxen, sheep, &c. so he can impair it, by selling part of his stock; but if the landlord suspects the tenant's management, he may, by sequestration or poinding, make his right, which was before general upon the whole stock, special upon every individual. A superior has also a hypothec for his feu-duty, of the same kind with that just explained.

24. In tacks of houses, breweries, shops, and other tenements, which have no natural fruits, the furniture, and other goods brought into the subject set are hypothecated to the landlord for one year's rent. But the tenant may by sale impair this hypothec, as he might that of cattle in rural tenements; and indeed, in the particular ease of a shop, the tenant rents it for no other purpose than as a place of sale.

Sect. VII. *Of the Transmission of Rights, by Confirmation and Resignation.*

clxviii. Transmission of feudal rights.

1. A vassal may transmit his feu either to universal successors, as heirs; or to singular successors, i. e. those who acquire by gift, purchase, or other singular title. This last sort of transmission is either voluntary, by disposition; or necessary, by adjudication.

2. By the first feudal rules, no superior could be compelled to receive any vassal in the lands, other than the heir expressed in the investiture; for the superior alone had the power of ascertaining to what order of heirs the fee granted by himself was to descend. But this right of refusal in the superior did not take place, (1.) In the case of creditors appraisers or adjudgers, whom superiors were obliged to receive upon payment of a year's rent (1469, c. 37. 1672, c. 19.): (1.) In the case of purchasers of bankrupt estates, who were put on the same footing with adjudgers, by 1690, c. 20. The crown refuses no voluntary disponee, on his paying a composition to the exchequer of a sixth part of the valued rent. Now, by 20 Geo. II. superiors are directed to enter all singular successors (except incorporations) who shall have got from the vassal a disposition, containing procuratory of resignation: they always receiving the fees or casualties that law entitles them to on a vassal's entry, i. e. a year's rent (A).

Law of Scotland. Base rights.

3. Base rights, i. e. dispositions to be holden of the disponer, are transmissions only of the property, the superiority remaining as formerly. As this kind of right might, before establishing the registers, have been kept quite concealed from all but the granter and receiver, a public right was preferable to it, unless clothed with possession: but as this distinction was no longer necessary after the establishment of the records, all infeftments are declared preferable, according to the dates of their several registrations; without respect to the former distinction of base and public, or of being clothed and not clothed with possession.

Public rights.

4. Public rights, i. e. dispositions to be holden of the granter's superior, may be perfected either by confirmation or resignation; and therefore they generally contain both precept of seisin and procuratory of resignation. When the receiver is to complete his right in the first way, he takes seisin upon the precept: but such seisin is ineffectual without the superior's confirmation; for the disponee cannot be deemed a vassal till the superior receive him as such, or confirm the holding. By the usual style in the transmission of lands, the disposition contains an obligation and precept of infeftment, both *à me* and *de me*, in the option of the disponee; upon which, if seisin is taken indefinitely, it is construed in favour of the disponee to be a base infeftment, because a public right is null without confirmation: but if the receiver shall afterwards obtain the superior's confirmation, it is considered as if it had been from the beginning a public right.

Preference in confirmation.

5. Where two several public rights of the same subject are confirmed by the superior, their preference is governed by the dates of the confirmations, not of the infeftments confirmed; because it is the confirmation which completes a public right.

Effect of confirmation.

6. Though a public right becomes, by the superior's confirmation, valid from its date; yet if any mid impediment intervene betwixt that period and the confirmation, to hinder the two from being conjoined, e. g. if the granter of a public right should afterwards grant a base right to another, upon which seisin is taken before the superior's confirmation of the first, the confirmation will have effect only from its own date; and consequently the base right first completed will carry the *property* of the lands preferable to the public one.

Resignations.

7. Resignation is that form of law, by which a vassal surrenders his feu to his superior; and it is either *ad perpetuam remanentiam*, or *in favorem*. In resignations *ad remanentiam*, where the feu is resigned, to the effect that it may remain with the superior, the superior, who before had the superiority, acquires, by the resignation, the property also of the lands resigned: and as his infeftment in the lands still subsisted, notwithstanding the right by which he had given his vassal the property; therefore, upon the vassal's resignation, the superior's

(A) It was long matter of doubt how this composition due to the superior upon the entry of singular successors should be regulated. The matter at last received a solemn decision; finding, That the superior is entitled, for the entry of singular successors, in all cases where such entries are not taxed, to a year's rent of the subject, whether lands or houses, as the same are set, or may be set at the time; deducting the feu-duty and all public burdens, and likewise all annual burdens imposed on the lands by consent of the superior, with all reasonable annual repairs to houses and other perishable subjects.

Law of Scotland. perior's right of property revives, and is consolidated with the superiority, without the necessity of a new infeftment; but the instrument of resignation must be recorded.

8. Resignations *in favorem* are made, not with an intention that the property resigned should remain with the superior, but that it should be again given by him, in favour either of the resigner himself, or of a third party; consequently the fee remains in the resigner, till the person in whose favour resignation is made gets his right from the superior perfected by seisin. And because resignations *in favorem* are but incomplete personal deeds, our law has made no provision for recording them. Hence, the first seisin on a second resignation is preferable to the last seisin upon the first resignation; but the superior, accepting a second resignation, whereupon a prior seisin may be taken in prejudice of the first resignatory, is liable in damages.

9. By our former decisions, one who was vested with a personal right of lands, i. e. a right not completed by seisin, effectually divested himself by disponing it to another; after which no right remained in the disponer, which could be carried by a second disposition, because a personal right, is no more than a *jus obligationis*, which may be transferred by any deed sufficiently expressing the will of the granter. But this doctrine, at the same time that it rendered the security of the records extremely uncertain, was not truly applicable to such rights as required seisin to complete them; and therefore it now obtains, that the granter even of a personal right of lands is not so divested by conveying the right to one person, but that he may effectually make it over afterwards to another; and the preference between the two does not depend on the dates of the dispositions, but on the priority of the seisins following upon them.

Sect. VIII. *Of Redeemable Rights.*

elxix. Reversions legal. 1. An heritable right is said to be redeemable, when it contains a right of reversion, or return, in favour of the person from whom the right flows. Reversions are either legal, which arise from the law itself, as in adjudications, which law declares to be redeemable within a certain term after their date; or conventional, which are constituted by the agreement of parties, as in wadsets, rights of annualrent, and rights in security.

Wadset. A wadset (from wad or pledge) is a right, by which lands, or other heritable subjects, are impignorated by the proprietor to his creditor in security of his debt: and, like other heritable rights, is perfected by seisin. The debtor, who grants the wadset, and has the right of reversion, is called the *reverser*; and the creditor, receiver of the wadset, is called the *wadsetter*.

2. Wadsets, by the present practice, are commonly made out in the form of mutual contracts, in which one party sells the land, and the other grants the right of reversion. When the right of reversion is thus incorporated in the body of the wadset, it is effectual without registration; because the singular successor in the wadset is, in that case, sufficiently certified of the reversion, though it be not registered, by looking into his own right, which bears it *in gremio*. But where the right of reversion is granted in a separate writing, it is ineffectual against the singular successor of the wadsetter, unless it be registered in the register of seisins within 60 days after the date of the seisin upon the wadset. Law of Scotland.

Reversion is *stricti juris*. 3. Rights of reversion are generally esteemed *stricti juris*; yet they go to heirs, though heirs should not be mentioned, unless there be some clause in the right, discovering the intention of parties, that the reversion should be personal to the reverser himself. In like manner, though the right should not express a power to redeem from the wadsetter's heir, as well as from himself, redemption will be competent against the heir. All our lawyers have affirmed, that reversions cannot be assigned, unless they are taken to assignees; but from the favour of legal diligence, they may be adjudged.

Redemption. 4. Reversions commonly leave the reverser at liberty to redeem the lands *quandocunque*, without restriction in point of time; but a clause is adjected to some reversions, that if the debt be not paid against a determinate day, the right of reversion shall be irritated, and the lands shall become the irredeemable property of the wadsetter. Nevertheless the irritancy being penal, as in wadsets, where the sum lent falls always short of the value of the lands, the right of redemption is by indulgence continued to the reverser, even after the term has expired, while the irritancy is not declared. But the reverser, if he does not take the benefit of this indulgence within 40 years after the lapse of the term, is cut out of it by prescription.

5. If the reverser would redeem his lands, he must use an order of redemption against the wadsetter: the first step of which is premonition (or notice given under form of instrument) to the wadsetter, to appear at the time and place appointed by the reversion, then and there to receive payment of his debt, and thereupon to renounce his right of wadset. In the voluntary redemption of a right of wadset holden base, a renunciation duly registered, re-establishes the reverser in the full right of the lands. Where the wadset was granted to be holden of the granter's superior, the superior must receive the reverser, on payment of a year's rent, if he produce a disposition from the wadsetter, containing procuratory of resignation. If, at executing the wadset, the superior has granted letters of regress, i. e. an obligation again to enter the reverser upon redemption of the lands, he will be obliged to receive him without payment of the year's rent. But letters of regress will not have this effect against singular successors in the superiority, if they are not registered in the register of reversions. All wadsets that remain personal rights, are extinguished by simple discharges, though they should not be recorded. Letters of regress.

Redemption money. 6. If the wadsetter either does not appear at the time and place appointed, or refuses the redemption money, the reverser must consign it under form of instrument, in the hands of the person appointed in the right of reversion; or, if no person be named, in the hands of the clerk to the bills, a clerk of session, or any responsible person. An instrument of consignation, with the consignatory's receipt of the money consigned, completes the order of redemption, stops the farther currency of interest against the reverser, and

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founds him in an action for declaring the order to be formal, and the lands to be redeemed in consequence of it.

7. After a decree of declarator is obtained, by which the lands are declared to return to the debtor, the consigned money, which comes in place of the lands, becomes the wadsetter's, who therefore can charge the consignatory upon letters of horning to deliver it up to him; but, because the reverser may, at any time before decree, pass from his order, as one may do from any other step of diligence, the consigned sums continue to belong to the reverser, and the wadsetter's interest in the wadset continues heritable till that period.

8. If the wadsetter chooses to have his money rather than the lands, he must require from the reverser, under form of instrument, the sums due by the wadset, in terms of the right. The wadset-sums may be heritable, notwithstanding requisition, which may be passed from the wadsetter even after the reverser has consigned the redemption money in consequence thereof.

Wadsets proper and improper.

9. Wadsets are either proper or improper. A proper wadset is that whereby it is agreed, that the use of the land shall go for the use of the money; so that the wadsetter takes his hazard of the rents, and enjoys them without accounting, in satisfaction, or *in solutum* of his interest.

10. In an improper wadset, the reverser, if the rent should fall short of the interest, is taken bound to make up the deficiency; if it amounts to more, the wadsetter is obliged to impute the excrescence towards extinction of the capital: And, as soon as the whole sums, principal, and interest, are extinguished by the wadsetter's possession, he may be compelled to renounce, or divest himself in favour of the reverser.

11. If the wadsetter be entitled by his right to enjoy the rents without accounting, and if at the same time the reverser be subjected to the hazard of their deficiency, such contract is justly declared usurious: and also in all proper wadsets wherein any unreasonable advantage has been taken of the debtor, the wadsetter must (by act 1661), during the not requisition of the sum lent, either quit his possession to the debtor, upon his giving security to pay the interest, or subject himself to account for the surplus rents, as in improper wadsets.

Right of annualrent.

12. Infeftments of annualrent, the nature of which has been explained, are also redeemable rights. A right of annualrent does not carry the property of the lands; but it creates a real *nexus* or burden upon the property, for payment of the interest or annualrent contained in the right; and consequently the bygone interests due upon it are *debita fundi*. The annualrenter may therefore either insist in a real action for obtaining letters of poinding the ground, or sue the tenant in a personal action towards the payment of his past interest: and in a competition for those rents, the annualrenter's preference will not depend on his having used a poinding of the ground, for his right was completed by the seisin; the power of poinding the ground, arising from that antecedent right, is *meræ facultatis*, and need not be exercised, if payment can be otherwise got. As it is only the interest of the sum lent which is a burden upon the lands, the annualrenter, if he wants his principal sum, cannot recover it either by poinding or by a personal action against the debtor's tenants; but must demand it from the debtor himself, on his personal obligation in the bond, either by requisition, or by a charge of letters of horning, according as the right is drawn.

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13. Rights of annualrent, being servitudes upon the property, and consequently consistent with the right of property in the debtor, may be extinguished without resignation.

Rights of security.

14. Infeftments in security are another kind of redeemable rights (now frequently used in place of rights of annualrent), by which the receivers are infeft in the lands themselves, and not simply in an annualrent forth of them, for security of the principal sums, interest, and penalty, contained in the rights. If an infeftment in security be granted to a creditor, he may thereupon enter into the immediate possession of the lands or annualrent for his payment. They are extinguished as rights of annualrent.

15. All rights of annualrent, rights in security, and generally whatever constitutes a real burden on the fee, may be the ground of an adjudication, which is preferable to all adjudications, or other diligences, intervening betwcen the date of the right and of the adjudication deduced on it; not only for the principal sum contained in the right, but also for the whole past interest contained in the adjudication. This preference arises from the nature of real debts, or *debita fundi:* but in order to obtain it for the interest of the interest accumulated in the adjudication, such adjudication must proceed on a process of poinding the ground.

Sect. IX. *Of Servitudes.*

Different kinds of servitude.

1. Servitude is a burden affecting lands, or rather heritable subjects, whereby the proprietor is either restrained from the full use of what is his own, or is obliged to suffer another to do something upon it. Servitudes are either *natural*, *legal*, or *conventional*. *Nature* itself may be said to constitute a servitude upon inferior tenements, whereby they must receive the water that falls from those that stand on higher ground. *Legal* servitudes are established by nature or custom, from considerations of public policy; among which may be numbered the restraints laid upon the proprietors of tenements within the city of Edinburgh. There is as great a variety of *conventional* servitudes, as there are ways by which the exercise of property may be restrained by paction in favour of another.

2. *Conventional* servitudes are constituted, either by grant, where the will of the party burdened is expressed in writing: or by prescription, where his consent is presumed from his acquiescence in the burden for 40 years. A servitude constituted by writing, or grant, is not effectual against the granter's singular successors, unless the grantee has been in the use or exercise of his right: but they are valid against the granter and his heirs even without use. In servitudes that may be acquired by prescription, 40 years exercise of the rights is sufficient, without any title in writing, other than a charter and seisin of the lands to which the servitude is claimed to be due.

3. Servitudes constituted by grant are not effectual,

in

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in a question with the superior of the tenements burdened with the servitude, unless his consent be adhibited; for a superior cannot be hurt by his vassal's deed: but where the servitude is acquired by prescription, the consent of the superior, whose right afforded him a good title to interrupt, is implied. A servitude by grant, though followed only by a partial possession, must be governed, as to its extent, by the tenor of the grant; but a servitude by prescription is limited by the measure or degree of the use had by him who prescribes: agreeable to the maxim, *Tantum præscriptum, quantum possessum.*

Predial servitudes.

4. Servitudes are either *predial* or *personal. Predial* servitudes are burdens imposed upon one tenement, in favour of another tenement. That to which the servitude is due is called the *dominant*, and that which owes it is called the *servient tenement.* No person can have right to a predial servitude, if he is not proprietor of some dominant tenement that may have benefit by it; for that right is annexed to a tenement, and so cannot pass from one person to another, unless some tenement goes along with it.

5. Predial servitudes are divided into *rural* servitudes, or of lands; and *urban* servitudes, or of houses.

Rural servitudes.

The rural servitudes of the Romans were *iter*, *actus*, *via*, *aquæductus*, *aquæhaustus*, and *jus pascendi pecoris.* Similar servitudes may be constituted with us, of a foot-road, horse-road, cart-road, dams and aqueducts, watering of cattle, and pasturage. The right of a high-way is not a servitude constituted in favour of a particular tenement, but is a right common to all travellers. The care of high-ways, bridges, and ferries, is committed to the sheriffs, justices of peace, and commissioners of supply in each shire.

6. Common pasturage, or the right of feeding one's cattle upon the property of another, is sometimes constituted by a general clause of pasturage in a charter or disposition, without mentioning the lands burdened; in which case, the right comprehends whatever had been formerly appropriated to the lands disponed out of the granter's own property, and likewise all pasturage due to them out of other lands. When a right of pasturage is given to several neighbouring proprietors, on a moor or common belonging to the granter, indefinite as to the number of cattle to be pastured, the extent of their several rights is to be proportioned according to the number that each of them can fodder in winter upon his own dominant tenement.

Urban servitudes.

7. The chief servitudes of houses among the Romans were those of support, viz. *tigni immittendi*, and *oneris ferendi.* The first was the right of fixing in our neighbour's wall, a joist or beam from our house: the second was that of resting the weight of one's house upon his neighbour's wall.

8. With us, where different floors or stories of the same house belong to different persons, as is frequent in the city of Edinburgh, the property of the house cannot be said to be entirely divided; the roof remains a common roof to the whole, and the area on which the house stands supports the whole; so that there is a communication of property, in consequence of which the proprietor of the ground floor must, without the constitution of any servitude, uphold it for the support of the upper, and the owner of the highest story must uphold that as a cover to the lower. When the highest is divided into garrets among the several proprietors, each proprietor is obliged, according to this rule, to uphold that part of the roof which covers his own garret.

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9. No proprietor can build, so as to throw the rain water falling from his own house, immediately upon his neighbour's ground, without a special servitude, which is called of *stillicide;* but, if it falls within his own property, though at the smallest distance from the march, the owner of the inferior tenement must receive it.

10. The servitudes *altius non tollendi, et non officiendi luminibus vel prospectui*, restrain proprietors from raising their houses beyond a certain height, or from making any building whatsoever that may hurt the light or prospect of the dominant tenement. These servitudes cannot be constituted by prescription alone; for, though a proprietor should have his house ever so low, or should not have built at all upon his grounds for 40 years together, he is presumed to have so for his own conveniency or profit: and therefore cannot be barred from afterwards building a house on his property, or raising it to what height he pleases, unless he be tied down by his own consent.

Servitude of feal and divot.

11. We have two predial servitudes to which the Romans were strangers, viz. that of fuel or feal and divot, and of thirlage. The first is a right, by which the owner of the dominant tenement may turn up peats, turfs, feals, or divots, from the ground of the servient, and carry them off either for fuel, or thatch, or the other uses of his own tenement.

Thirlage.

12. THIRLAGE is that servitude, by which lands are astricted, or thirled, to a particular mill; and the possessors bound to grind their grain there, for payment of certain multures and sequels as the agreed price of grinding. In this servitude, the mill is the dominant tenement and the lands astricted (which are called also the *thirl* or *sucken*) the servient. Multure is the quantity of grain or meal payable to the proprietor of the mill, or to the multurer his tacksman. The sequels are the small quantities given to the servants, under the name of *knaveship*, *bannock*, and *lock* or *gowpen.* The quantities paid to the mill by the lands not astricted, are generally proportioned to the value of the labour, and are called *out-town* or *out-sucken multures;* but those paid by the thirl are ordinarily higher, and are called *in-town* or *in-sucken multures.*

13. Thirlage may be constituted by a landholder, when, in the disposition of certain lands, he astricts them to his own mill; or when in the disposition of a mill, he astricts his own lands to the mill disponed; or when in letting his lands, he makes it a condition in the tacks. The grant of a mill with the general clause of multures, without specifying the lands astricted, conveys the thirlage of all the lands formerly astricted to that mill, whether they were the property of the granter, or of a third party.

14. A less formal constitution serves to astrict barony lands to the mill of the barony, than is necessary in any other thirlage; which perhaps proceeds from the effects of the union betwixt the two. Hence, if a baron makes over the mill of a barony, *cum multuris*, or *cum astrictis multuris*, it infers an astriction of the barony lands to the mill conveyed, although they had not formerly been astricted. But if prior to the baron's

conveyance

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conveyance of his mill *cum multuris*, he had sold any part of the barony lands to another *cum multuris*, the first purchaser's lands are not astricted by the posterior grant; for a right of lands with the multures, implies a freedom of these lands from thirlage.

15. Thirlage is either, 1. Of grindable corns; or, 2. Of all growing corns: or, 3. Of the *invecta et illata*, i. e. of all the grain brought within the thirl, though of another growth. Where the thirlage is of grindable grain, it is in practice restricted to the corns which the tenants have occasion to grind, either for the support of their families, or for other uses; the surplus may be carried out of the thirl unmanufactured, without being liable in multure. Where it is of the *grana crescentia*, the whole grain growing upon the thirl is astricted, with the exceptions, 1. Of seed and horse-corn, which are destined to uses inconsistent with grinding; and, 2. Of the farm duties due to the landlord, if they were delivered in grain not grinded. But, if the rent be payable in meal, flour, or malt, the grain of which these are made must be manufactured in the dominant mill.

16. The thirlage of *invecta et illata* is seldom constituted but against the inhabitants of a borough or village, that they shall grind all the unmanufactured grain they import thither at the dominant mill. Multure, therefore, cannot be exacted in a thirlage of *invecta et illata*, for flour or oatmeal brought into the servient tenement, unless the importer had brought it in grain, and grinded it at another mill. The same grain that owes multure, as *granum crescens*, to the mill in whose thirl it grew, if it shall be afterwards brought within a borough where the *invecta et illata* are thirled, must pay a second multure to the proprietor of that dominant tenement; but, where the right of these two thirlages is in the same proprietor, he cannot exact both. Where lands are thirled in general terms, without expressing the particular nature of the servitude, the lightest thirlage is presumed, from the favour of liberty; but in the astriction of a borough or village, where there is no growing grain which can be the subject of thirlage, the astriction of *invecta et illata* must be necessarily understood.

17. Thirlage, in the general case, cannot be established by prescription alone, for *iis quæ sunt meræ facultatis non præscribitur;* but where one has paid for 40 years together the heavy in-sucken multures, the slightest title in writing will subject his lands. Thirlage may, contrary to the common rule, be constituted by prescription alone, 1. Where one pays to a mill a certain sum, or quantity of grain yearly, in name of multure, whether he grinds at it or not, (called *dry multure*). 2. In mills of the king's property; which is constituted *jure coronæ*, without titles in writing; and, where he derives right from another, his titles are more liable to be lost. This is extended in practice to mills belonging to church lands, where thirty years possession is deemed equivalent to a title in writing, from a presumption that their rights were destroyed at the Reformation. Though thirlage itself cannot be constituted by mere possession, the proportion of multure payable to the dominant tenement may be so fixed.

18. The possessors of the land astricted are bound to uphold the mill, repair the dam dykes and aqueducts, and bring home the millstones. These services though not expressed in the constitution, are implied.

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19. Servitudes, being restraints upon property, are *stricti juris:* they are not therefore presumed if the acts upon which they are claimed can be explained consistently with freedom: and when servitudes are constituted, they ought to be used in the way least burdensome to the servient tenement. Hence, one who has a servitude of peats upon his neighbour's moss, is not at liberty to extend it for the use of any manufacture which may require an extraordinary expence of fuel: but must confine it to the natural uses of the dominant tenement.

Servitudes are *stricti juris.*

20. Servitudes are extinguished, (1.) *Confusione*, when the person comes to be proprietor of the dominant and servient tenements; for *res sua nomini servit*, and the use the proprietor therefore makes of the servient tenement is not *jure servitutis*, but is an act of property. (2.) By the perishing either of the dominant or servient tenement. (3.) Servitudes are lost *non utendo*, by the dominant tenement neglecting to use the right of 40 years; which is considered as a dereliction of it, though he who has the servient teuement should have made no interruption by doing acts contrary to the servitude.

21. *Personal* servitudes are those by which the property of a subject is burdened, in favour, not of a tenement, but of a person. The only personal servitude known in our law, is usufruct or liferent; which is a right to use and enjoy a thing during life, the substance of it being preserved. A liferent cannot therefore be constituted upon things which perish in the use; and though it may upon subjects which gradually wear out by time, as household furniture, &c. yet with us, it is generally applied to heritable subjects. He whose property is burdened, is usually called the *fiar*.

Liferent.

22. Liferents are divided into *conventional* and *legal*. *Conventional* liferents are either *simple*, or *by reservation*. A *simple liferent*, or by a separate constitution, is that which is granted by the proprietor in favour of another: And this sort, contrary to the nature of predial servitudes, requires seisin in order to affect singular successors; for a liferent of lands is, in strict speech, not a servitude, but a right resembling property which constitutes the liferenter vassal for life; and singular successors have no way of discovering a liferent right, which perhaps is not yet commenced, but by the records: whereas, in predial servitudes, the constant use of the dominant tenement makes them public. The proper right of liferent is intransmissible: *ossibus usufructuarii inhæret:* When the profits of the liferented subject are transmitted to another, the right becomes merely personal: for it entitles the assignee to the rent, not during his own life, but his cedent's; and is therefore carried by simple assignation, without seisin.

Liferents.

23. A liferent *by reservation*, is that which a proprietor reserves to himself in the same writing by which he conveys the fee to another. It requires no seisin; for the granter's former seisin, which virtually included the liferent, still subsists as to the liferent which is expressly reserved. In conjunct infeftments taken to husband and wife, the wife's right of conjunct fee resolves, in the general case, into a liferent.

24. Liferents, *by law*, are the *terce* and the *courtesy*.

Terce.

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tesy. The *terce* (*tertia*) is a liferent competent by law to widows, who have not accepted of special provisions, in the third of the heritable subjects in which their husbands died infeft; and takes place only where the marriage has subsisted for year and day, or where a child has been born alive of it (B).

25. The terce is not limited to laods, but extends to teinds, and to servitudes and other burdens affecting lands; thus, the widow is entitled, in the right of her terce, to a liferent of the third of the sums secured, either by rights of annualrent, or by rights in security. In improper wadsets, the terce is a third of the sum lent: In those that are proper, it is a third of the wadset lands; or, in case of redemption, a third of the redemption money. Neither right of reversion, superiority, nor patronage, fall under the terce; for none of these have fixed profits, and so are not proper subjects for the widow's subsistence; nor tacks, because they are not feudal rights. Burgage tenements are also excluded from it, the reason of which is not so obvious. Since the husband's seisin is both the measure and security of the terce, such debts or diligences alone, as exclude the husband's seisin, can prevail over it.

26. Where a terce is due out of lands burdened with a prior terce still subsisting, the second tercer has only right to a third of the two thirds that remain unaffected by the first terce. But upon the death of the first widow, whereby the lands are disburdened of her terce, the lesser terce becomes enlarged, as if the first had never existed. A widow, who has accepted of a special provision from her husband, is thereby excluded from the terce, unless such provision shall contain a clause that she shall have right to both.

27. The widow has no title of possession, and so cannot receive the rents in virtue of her terce, till she be served to it; and in order to this she must obtain a brief out of the chancery, directed to the sheriff, who calls an inquest, to take proof that she was wife to the deceased, and that her husband died infeft in the subjects contained in the brief. The service or sentence of the jury, finding these points proved, does, without the necessity of a retour to the chancery, entitle the wife to enter into the possession; but she can only possess with the heir *pro indiviso*, and so cannot remove tenants till the sheriff kens her to her terce, or divides the lands between her and the heir. In this division, after determining by lot or kavil, whether to begin by the sun or the shade, i. e. by the east or the west, the sheriff sets off the two first acres for the heir, and the third for the widow. Sometimes the division is executed, by giving one entire farm to the widow, and two of equal value to the heir. The widow's right is not properly constituted by this service; it was constituted before by the husband's seisin, and fixed by his death; the service only declares it, and so entitles her to the third part of the rents *retro* to her husband's death, preferable to any rights that may have affected the lands in the intermediate period between that and her own service. The relict, if she was reputed to be lawful wife to the deceased, must be served, notwithstanding any objections by the heir against the marriage, which may be afterwards tried by the commissary.

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28. *Courtesy* is a liferent given by law, to the surviving husband, of all his wife's heritage in which she died infeft, if there was a child of the marriage born alive. A marriage, though of the longest continuance, gives no right to the courtesy, if there was no issue of it. The child born of the marriage must be the mother's heir: If she had a child of the former marriage, who is to succeed to her estate, the husband has no right to the courtesy while such child is alive; so that the courtesy is due to the husband, rather as father to an heir, than as husband to an heiress. Heritage is here opposed to conquest; and so is to be understood only of the heritable rights to which the wife succeeded as heir to her ancestors, excluding what she herself had acquired by singular titles.

Courtesy.

29. Because the husband enjoys the liferent of his wife's whole heritage, on a lucrative title, he is considered as her temporary representative; and so is liable in payment of all the yearly burdens chargeable on the subject, and of the current interest of all her debts, real and personal, to the value of the yearly rent he enjoys by the courtesy. The courtesy needs no solemnity to its constitution: That right which the husband had to the rents of his wife's estate during the marriage, *jure mariti*, is continued with him after her death, under the name of *courtesy*, by an act of the law itself. As in the terce, the husband's seisin is the ground and measure of the wife's right; so in the courtesy, the wife's seisin is the foundation of the husband's; and the two rights are, in all other respects, of the same nature; if it is not that the courtesy extends to burgage holdings, and to superiorities.

30. All liferenters must use their right *salva rei substantia:* whatever therefore is part of the fee itself, cannot be encroached on by the liferenter, e. g. woods or growing timber, even for the necessary uses of the liferented tenement. But, where a coppice or *silva cædua* has been divided into bags, one of which was in use to be cut annually by the proprietor, the liferenter may continue the former yearly cuttings; because these are considered as the annual fruits the subject was intended to yield, and so the proper subject of a liferent.

31. Liferenters are bound to keep the subject liferented in proper repair. They are also burdened with the alimony of the heir; where he has not enough for maintaining himself. The bare right of apparency founds

(B) In the case referred to, when treating of the effects of the dissolution of marriage within the year without a living child, and where no special provisions had been granted to, or accepted by, the widow; she did not demand her *legal* provisions of *terce* or *jus relictæ*, but merely insisted, that as widow she was entitled to be *alimented* out of the heritable estate of which her husband died possessed: So that the decision in that case cannot so properly be said to be an alteration in the law, as an equitable interposition of the court of session, in their capacity as a court of equity, in order to grant a subsistence to the widow of a man whose estate was fully sufficient, and who, it could not reasonably be presumed, would have inclined that his widow should be left destitute, when his estate went perhaps to a distant series of heirs.

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founds the action against the liferenter. It is a burden personal to the liferenter himself, and cannot be thrown upon his adjudging creditors as coming in his place by their diligences. Liferenters are also subjected to the payment of the yearly cesses, stipends, &c. falling due during their right, and to all other burdens that attend the subject liferented.

32. Liferent is extinguished by the liferenter's death. That part of the rents which the liferenter had a proper right to, before his death, falls to his executors; the rest, as never having been *in bonis* of the deceased, goes to the fiar. Martinmas and Whitsunday are, by our custom, the legal terms of the payment of rent: consequently, if a liferenter of lands survives the term of Whitsunday, his executors are entitled to the half of that year's rent, because it was due the term before his death; and if he survives the term of Martinmas, they have right to the whole. If the liferenter, being in the natural possession, and having first sowed the ground, should die, even before Whitsunday, his executors are entitled to the whole crop, in respect that both seed and industry were his. In a liferent of money constituted by a moveable bond, the executors have a right to the interest, down to the very day of the liferenter's death, where no terms are mentioned for the payment thereof; but in the case of an heritable bond, or of a money liferent secured on land, the interests of liferenter and fiar (or of heir and executor, for the same rules serve to fix the interests of both) are both governed by the legal terms of land rent, without regard to the conventional.

Sect. X. *Teinds.*

clxxi. Teinds.

1. Teinds, or tithes, are that liquid proportion of our rents or goods, which is due to churchmen for performing divine service, or exercising the other spiritual functions proper to their several offices. Most of the canonists affirm, that the precise proportion of a tenth, not only of the fruits of the ground, but of what is acquired by personal industry, is due to the Christian clergy, of divine right, which they therefore call the *proper patrimony of the church*; though it is certain that tithes, in their infancy, were given, not to the clergy alone, but to lay-monks who were called *pauperes*, and to other indigent persons. Charles the Great was the first secular prince who acknowledged this right in the church. It appears to have been received with us, as far back as David I.

2. The person employed by a cathedral church or monastery to serve the cure in any church annexed was called a *vicar*, because he held the church, not in his own right, but in the right or *vice* of his employers; and so was removeable at pleasure, and had no share of the benefice, other than what they thought fit to allow him: but, in the course of time, the appellation of *vicar* was limited to those who were made perpetual, and who got a stated share of the benefice for their incumbency; from whence arose the distinction of benefices into parsonages and vicarages.

3. Parsonage teinds are the teinds of corn; and they are so called because they are due to the parson or other titular of the benefice. Vicarage teinds are the small teinds of calves, lint, hemp, eggs, &c. which were commonly given by the titular to the vicar who served the cure in his place. The first sort was universally due, unless in the case of their infeudation to laics, or of a pontifical exemption; but by the customs of almost all Christendom, the lesser teinds were not demanded where they had not been in use to be paid. By the practice of Scotland, the teinds of animals, or of things produced from animals, as lambs, wool, calves, are due though not accustomed to be paid; but roots, herbs, &c. are not tithable, unless use of payment be proved: neither are personal teinds (i. e. the tenth of what one acquires by his own industry) acknowledged by our law: yet they have been found due, when supported by 40 years possession.

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4. The parson who was entitled to the teind of corns, made his right effectual, either by accepting of a certain number of teind bolls yearly from the proprietor in satisfaction of it; or, more frequently, by drawing or separating upon the field his own tenth part of the corns, after they were reaped, from the stock or the remaining nine-tenths of the crop, and carrying it off to his own granaries; which is called *drawn teind.*

Annexation of church lands to the crown.

5. After the Reformation, James VI. considered himself as proprietor of all the church lands; partly because the purposes for which they had been granted were declared superstitious; and partly, in consequence of the resignations which he, and Queen Mary his mother, had procured from the beneficiaries: and even as to the teinds, though our reformed clergy also claimed them as the patrimony of the church, our sovereign did not submit to that doctrine farther than extended to a competent provision for ministers. He therefore erected or secularized several abbacies and priories into temporal lordships; the grantees of which were called sometimes *lords of erection*, and sometimes *titulars*, as having by their grants the same title to the erected benefices that the monasteries had formerly.

6. As the crown's revenue suffered greatly by these erections, the temporality of all church benefices (i. e. church lands) was, by 1587, c. 29. annexed to the crown. That statute excepts from the annexation such benefices as were established before the Reformation in laymen, whose rights the legislature had no intention to weaken. Notwithstanding this statute his majesty continued to make farther erections, which were declared null by 1592, c. 119. with an exception of such as had been made in favour of lords of parliament since the general act of annexation in 1587.

7. King Charles I. soon after his succession, raised a reduction of all these erections, whether granted before or after the act of annexation, upon the grounds mentioned at length by Mr Forbes in his Treatise of Tithes, p. 259. At last the whole matter was referred to the king himself by four several submissions or compromises; in which the parties on one side were the titulars and their tacksmen, the bishops with the inferior clergy, and the royal boroughs, for the interest they had in the teinds that were gifted for the provision of ministers, school, or hospitals within their boroughs; and, on the other part, the proprietors who wanted to have the leading of their own teinds. The submission by the titulars contained a surrender into his majesty's hands of the superiorities of their several erections.

Valuation of teinds.

8. Upon each of these submissions his majesty pronounced several decrees arbitral, dated Sept. 2. 1629, which are subjoined to the acts of parliament of his reign.

He

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He made it lawful to proprietors to sue the titulars for a valuation, and if they thought fit for a sale also, of their teinds, before the commissioners named or to be named for that purpose. The rate of teind, when it was possessed by the proprietor jointly with the stock, for payment of a certain duty to the titular, and so did not admit a separate valuation, was fixed at a fifth part of the constant yearly rent, which was accounted a reasonable *surrogatum*, in place of a tenth of the increase. Where it was drawn by the titular, and consequently might be valued separately from the stock, it was to be valued as its extent should be ascertained, upon a proof before the commissioners; but in this last valuation, the king directed the fifth part to be deducted from the proved teind, in favour of the proprietor, which was therefore called the *king's ease*. The proprietor suing for a valuation gets the leading of his own teinds as soon as his suit commences, providing he does not allow protestation to be extracted against him for not insisting.

9. Where the proprietor insisted also for a sale of his teinds, the titular was obliged to sell them at nine years purchase of the valued teind duty. If the pursuer had a tack of his own teinds, not yet expired; or if the defender was only tacksman of the teinds, and so could not give the pursuer an heritable right; an abatement of the price was to be granted accordingly by the commissioners.

10. There is no provision in the decrees arbitral, for selling the teinds granted for the sustentation of ministers, universities, schools, or hospitals; because these were to continue, as a perpetual fund, for the maintenance of the persons or societies to whom they were appropriated; and they are expressly declared not subject to sale, by 1690, c. 30.—1693, c. 23. By the last of these acts, it is also provided, that the teinds belonging to bishops, which had then fallen to the crown upon the abolishing of Episcopacy, should not be subject to sale as long as they remained with the crown not disposed of; nor those which the proprietor, who had right both to stock and teind, reserved to himself in a sale or feu of the lands. But, though none of these teinds can be sold, they may be valued.

King's right to the superiorities of erection.

11. The king, by the decrees arbitral, declared his own right to the superiorities of erection which had been resigned to him by the submission, reserving to the titulars the feu duties thereof, until payment by himself to them of 1000 merks Scots for every chalder of feu victual, and for each 100 merks of feu duty; which right of redeeming the feu duties was afterwards renounced by the crown. If the church vassal should consent to hold his lands of the titular, he cannot thereafter recur to the crown as his immediate superior.

Rules for fixing the rent in the valuation of teinds.

12. In explaining what the constant rent is by which the teind must be valued, the following rules are observed. The rent drawn by the proprietor from the sale of subjects, that are more properly parts of the land than of the fruits, e. g. quarries, minerals, mosses, &c. is to be deducted from the rental of the lands, and also the rent of supernumerary houses, over and above what is necessary for agriculture; and the additional rent that may be paid by the tenant, in consideration of the proprietor's undertaking any burden that law imposes on the tenant, e. g. upholding the tenant's houses, because none of these articles are paid properly on account of the fruits. Orchards must also be deducted, and mill rent, because the profits of a mill arise from industry; and the corns manufactured there suffer a valuation as rent payable by the tenant, and therefore ought not to be valued a second time against the titular as mill rent. The yearly expence of culture ought not to be deducted: for no rent can be produced without it: but, if an improvement of rent is made at an uncommon expence, e. g. by draining a lake, the proprietor is allowed a reasonable abatement on that account.

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13. Notwithstanding the several ways of misapplying parochial teinds in the times of Popery, some few benefices remained entire in the hands of the parsons. The ministers planted in these, after the Reformation, continued to have the full right to them, as proper beneficiaries: but a power was afterwards granted to the patron, to redeem the whole teind from such beneficiaries, upon their getting a competent stipend modified to them; which teind so redeemed, the patron is obliged to sell to the proprietor, at six years purchase.

Teinds redeemable, &c.

14. Some teinds are more directly subject to an allocation for the minister's stipend than others. The teinds in the hands of the lay titular fall first to be allocated, who, since he is not capable to serve the cure in his own person, ought to provide one who can; and if the titular, in place of drawing the teind, has set it in tack, the tack duty is allocated: this sort is called *free teind*. Where the tack duty, which is the titular's interest in the teinds, falls short, the tack itself is burdened, or, in other words, the surplus teind over and above the tack duty: but, in this case, the commissioners are empowered to recompense the tacksman, by prorogating his tack for such a number of years as they shall judge equitable. Where this likewise proves deficient, the allocation falls on the teinds heritably conveyed by the titular, unless he has warranted his grant against future augmentations; in which case, the teinds of the lands belonging in property to the titular himself must be allocated in the first place.

15. Where there is sufficiency of free teinds in a parish, the titular may allocate any of them he shall think fit for the minister's stipend, since they are all his own; unless there has been a previous decree of locality: and this holds, though the stipend should have been paid immemorially out of the teinds of certain particular lands. This right was frequently abused by titulars, who, as soon as a proprietor had brought an action of sale of his teinds, allocated the pursuer's full teind for the stipend, whereby such action became ineffectual; it was therefore provided, that after citation in a sale of teinds, it shall not be in the titular's power to allocate the pursuer's teinds solely, but only in proportion with the other teinds in the parish.

16. Ministers glebes are declared free from the payment of teind. Lands *cum decimis inclusis* are also exempted from teind. But in order to exempt lands from payment of teind, it is necessary that the proprietor prove his right thereto, *cum decimis inclusis*, as far back as the above act of annexation 1587.

Ministers glebes, &c. exempted from teinds.

17. Teinds are *debita fructuum*, not *fundi*. The action therefore for bygone teinds is only personal, against those who have intermeddled, unless where the titular

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titular is infeft in the lands, in security of the valued teind doty. Where a tenant is, by his tack, bound to pay a joint duty to the landlord for stock and teind, without distinguishing the rent of each, his defence of a *bona fide* payment of the whole to the landlord has been sustained in a suit at the instance of a laic titular, but repelled where a churchman was pursuer. In both cases the proprietor who receives such rent is liable as intermeddler.

Inhibition of teinds.

18. In tacks of teinds, as of lands, there is place for tacit relocation: to stop the effect of which, the titular must obtain and execute an inhibition of teinds against the tacksman; which differs much from inhibition of lands (explained under the next section), and is intended merely to interpel or inhibit the tacksman from farther intermeddling. This diligence of inhibition may also be used at the suit of the titular, against any other possessor of the teinds; and if the tacksman or possessor shall intermeddle after the inhibition is executed, he is liable in a spuilzie.

19. Lands and teinds pass by different titles: a disposition of lands, therefore, though granted by one who has also right to the teind, will not carry the teind, unless it shall appear from special circumstances that a sale of both was designed by the parties. In lands *cum decimis inclusis*, where the teinds are consolidated with the stock, the right of both must necessarily go together in all cases.

Sect. XI. *Of Inhibitions.*

clxxii.

1. The constitution and transmission of feudal rights being explained, and the burdens with which they are chargeable, it remains to be considered how these rights may be affected at the suit of creditors by legal diligence. Diligences are certain forms of law, whereby a creditor endeavours to make good his payment, either by affecting the person of his debtor, or by securing the subjects belonging to him from alienation, or by carrying the property of these subjects to himself. They are either real or personal. Real diligence is that which is proper to heritable or real rights; personal, is that by which the person of the debtor may be secured, or his personal estate affected. Of the first sort we have two, viz. inhibition and adjudication.

Diligences.

Inhibition.

2. Inhibition is a personal prohibition, which passes by letters under the signet, prohibiting the party inhibited to contract any debt, or do any deed, by which any part of his lands may be aliened or carried off in prejudice of the creditor inhibiting. It must be executed against the debtor, personally, or at his dwelling house, as summonses, and thereafter published and registered in the same manner with interdictions, (see N° clxxxiii. 21.).

3. Inhibition may proceed, either upon a liquid obligation, or even on an action commenced by a creditor for making good a claim not yet sustained by the judge; which last is called *inhibition upon a depending action*. The summons, which constitutes the dependence, must be executed against the debtor before the letters of inhibition pass the signet; for no suit can be said to depend against one till he be cited in it as a defender: but the effect of such inhibition is suspended till decree be obtained in the action against the debtor; and in the same manner, inhibitions on conditional debts have no effect till the condition be purified. Inhibitions are not granted, without a trial of the cause, when they proceed on conditional debts. And though, in other cases, inhibitions now pass of course, the lords are in use to stay, or recal them, either on the debtor's showing cause why the diligence should not proceed, or even *ex officio* where the ground of the diligence is doubtful.

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Limited to heritage.

4. Though inhibitions, by their uniform style, disable the debtor from selling his moveable as well as his heritable estate, their effect has been long limited to heritage, from the interruption that such an embargo upon moveables must have given to commerce; so that debts contracted after inhibition may be the foundation of diligence against the debtor's person and moveable estate. An inhibition secures the inhibitor against the alienation, not only of lands that belonged to his debtor when he was inhibited, but of those that he shall afterwards acquire: but no inhibition can extend to such after-purchases as lie in a jurisdiction where the inhibition was not registered; for it could not have extended to these though they had been made prior to the inhibition.

5. This diligence only strikes against the voluntary debts or deeds of the inhibited person: it does not restrain him from granting necessary deeds, i. e. such as he was obliged to grant anterior to the inhibition, since he might have been compelled to grant these before the inhibitor had acquired any right by his diligence. By this rule, a wadsetter or annualrenter might, after being inhibited, have effectually renounced his right to the reverser on payment, because law could have compelled him to it; but to secure inhibitors against the effect of such alienations, it is declared by act of sederunt of the court of session, Feb. 19. 1680, that, after intimation of the inhibition to the reverser, no renunciation or grant of redemption shall be sustained, except upon declarator of redemption brought by him, to which the inhibitor must be made a party.

Is simply prohibitory.

6. An inhibition is a diligence simply prohibitory, so that the debt, on which it proceeds, continues personal after the diligence; and consequently, the inhibitor, in a question with anterior creditors whose debts are not struck at by the inhibition, is only preferable from the period at which his debt is made real by adjudication: and where debts are contracted on heritable security, though posterior to the inhibition, the inhibitor's debt, being personal, cannot be ranked with them; he only draws back from the creditors ranked the sums contained in his diligence. The heir of the person inhibited is not restrained from alienation by the diligence used against his ancestor; for the prohibition is personal, affecting only the debtor against whom the diligence is used.

7. Inhibitions do not of themselves make void the posterior debts or deeds of the person inhibited; they only afford a title to the user of the diligence to set them aside, if he finds them hurtful to him: and even where a debt is actually reduced *ex capite inhibitionis*, such reduction, being founded solely in the inhibitor's interest, is profitable to him alone, and cannot alter the natural preference of the other creditors.

Purging of inhibitions arising

8. Inhibitions may be reduced upon legal nullities,

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arising either from the ground of debt or the form of diligence. When payment is made by the debtor to the inhibitor, the inhibition is said to be *purged*. Any creditor, whose debt is struck at by the inhibition, may, upon making payment to the inhibitor, compel him to assign the debt and diligence in his favour, that he may make good his payment the more effectually against the common debtor.

Sect. XII. *Of Comprisings, Adjudications, and Judicial Sales.*

clxxii. 1. Heritable rights may be carried from the debtor to the creditor, either by the diligence of appraising (now adjudication), or by a judicial sale carried on before the court of session. Appraising, or comprising, was the sentence of a sheriff, or of a messenger who was specially constituted sheriff for that purpose, by which the heritable rights belonging to the debtor were sold for payment of the debt due to the appraiser; so that appraisings were, by their original constitution, proper sales of the debtor's lands to any purchaser who offered. If no purchaser could be found, the sheriff was to appraise or tax the value of the lands by an inquest (whence came the name of *appraising*), and to make over to the creditor lands to the value of the debt. A full history of appraisings will be found in the beginning of Mr Erskine's large *Institute* under this title; it being considered as unnecessary to enter into a deduction now no longer necessary, as by the act 1672 adjudications were substituted in their place.

Appraising.

2. That creditors may have access to affect the state of their deceased debtor, though the heir should stand off from entering, it is made lawful (by 1540, c. 106.) for any creditor to charge the heir of his debtor to enter to his ancestor (year and day being past after the ancestor's death), within 40 days after the charge; and if the heir fails, the creditor may proceed to appraise his debtor's lands, as if the heir had been entered. Custom has so explained this statute, that the creditor may charge the heir, immediately after the death of his ancestor, provided that the summons which is to be founded on the charge be not raised till after the expiry both of the year and of the 40 days next ensuing the year, within which the heir is charged to enter.—But this statute relates only to such charges on which appraising is to be led against the ancestor's land; for in those which are to be barely the foundation of a common summons or process against the heir, action will be sustained if the year be elapsed from the ancestor's death before the execution of the summons, though the 40 days should not be also expired. Though the statute authorises such charges against majors only, practice has also extended it against minors, and the rule is extended to the case where the heir is the debtor. One must, in this matter, distinguish between a general and a special charge. A general charge serves only to fix the representation of the heir who is charged, so as to make the debt his which was formerly his ancestor's: but a special charge makes up for the want of a service (N° clxxx. 25.); and states the heir, *fictione juris*, in the right of the subjects to which he is charged to enter. Where, therefore, the heir is the debtor, a general charge for fixing the representation against him is unnecessary, since the only concern of the creditor is, that his debtor make up titles to the ancestor's estate, which is done by a special charge: but where the deceased was the debtor, the creditor must first charge his heir to enter in general, that it may be known whether he is to represent the debtor: if he does not enter within forty days, the debt may be fixed against him by a decree of constitution; after which the heritable rights belonging to the ancestor will fall to be attached; in doing which, the diligence to be used is different, according to the state of the titles in the ancestor's person: for if the ancestor stood vested by infeftment, the heir must be charged to enter heir in special; but if the ancestor had but a personal right to the subjects (i. e. not perfected by seisin), which would have been carried to the heir by a general service, then what is called a *general special charge* must be given to the heir. These charges either special or general special, as the circumstances of the case may require, are by the statute 1540 made equivalent to the heir's actual entry; and therefore an adjudication led after the *inducie* of the charges are elapsed, effectually carries to the creditor the subjects to which the heir was charged to enter.

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3. Appraisings in course of time underwent many changes in their form and effect, till at length, by act 1672, c. 19. adjudications were substituted in their place, and are carried on by way of action before the court of session. By that statute, such part of the debtor's lands is to be adjudged as is equivalent to the principal sum and interest of the debt, with the composition due to the superior and expences of infeftment, and a fifth part more in respect the creditor is obliged to take land for his money. The debtor must deliver to the creditor a valid right of the lands to be adjudged, or transumpts thereof, renounce the possession in his favour, and ratify the decree of adjudication: and law considers the rent of the houses as precisely commensurated to the interest of the debt; so that the adjudger lies under no obligation to account for the surplus rents. In this, which is called a *special adjudication*, the legal, or time within which the debtor may redeem, is declared to be five years; and the creditor attaining possession upon it can use no farther execution against the debtor, unless the lands be evicted from him.

Adjudications.

4. Where the debtor does not produce a sufficient right to the lands, or is not willing to renounce the possession, and ratify the decree (which is the case that has most frequently happened), the statute makes it lawful for the creditor to adjudge all right belonging to the debtor in the same manner, and under the same reversion of ten years, as he could, by the former laws have appraised it. In this last kind, which is called a *general adjudication*, the creditor must limit his claim to the principal sum, interest, and penalty, without demanding a fifth part more. But no general adjudication can be insisted on, without libelling in the summons the other alternative of a special adjudication; for special adjudications are introduced by the statute in the place of appraisings; and it is only where the debtor refuses to comply with the terms thereof, that the creditor can lead a general adjudication.

5. Abbreviates are ordained to be made of all adjudications, which must be recorded within 60 days after the date of the decree. In every other respect,

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general adjudications have the same effects that appraisings had: adjudgers in possession are accountable for the surplus rents; a citation in adjudications renders the subject litigious; superiors are obliged to enter adjudgers; the legal of adjudications does not expire during the debtor's minority, &c. Only it may be observed, that though appraisings could not proceed before the term of payment, yet where the debtor is *vergens ad inopiam*, the court *ex nobili officio* admit adjudication for the debt before it be payable. But this sort being founded solely in equity, subsists merely as a security, and cannot carry the property to the creditor by the lapse of any length of time.

Two kinds of adjudications.

6. There are two kinds of adjudication, which took place at the same time with appraisings, and still obtain; viz. adjudications on a decree *cognitionis causa*, otherwise called *contra hæreditatem jacentem*; and adjudications *in implement*. Where the debtor's apparent heir, who is charged to enter, formally renounces the succession, the creditor may obtain a decree *cognitionis causa*; in which, though the heir renouncing is cited for the sake of form, no sentence condemnatory can be pronounced against him, in respect of his renunciation; the only effect of it is to subject the *hæreditas jacens* tn the creditor's diligence.

7. Adjudications *contra hæreditatem jacentem*, carry not only the lands themselves that belonged to the deceased, but the rents thereof fallen due since his death; for these, as an accessory to the estate belonging to the deceased, would have descended to the heir if he had entered, which rule is applied to all adjudications led on a special charge. This sort of adjudication is declared redeemable within seven years, by any co-adjudging creditor, either of the deceased debtor or of the heir renouncing. The heir himself, who renounces, cannot be restored against his renunciation, nor consequently redeem, if he be not a minor. But even a major may redeem indirectly, by granting a simulate bond to a confident person: the adjudication upon which, when conveyed to himself, is a good title to redeem all other adjudications against the lands belonging to his ancestor.

8. Adjudications *in implement* are deduced against those who have granted deeds without procuratory of resignation or precept of seisin, and refuse to divest themselves; to the end that the subject conveyed may be effectually vested in the grantee. These adjudications may be also directed against the heir of the granter, upon a charge to enter. Here there is no place for a legal reversion; for as the adjudication is led for completing the right of a special subject, it must carry that subject as irredeemably as if the right had been voluntarily completed.

9. All adjudications led within year and day of that one which has been made first effectual by seisin (where seisin is necessary), or exact diligence for obtaining seisin, are preferable *pari passu*. The year and day runs from the date of the adjudication, and not of the seisin or diligence, for obtaining it. After the days of that period, they are preferable according to their dates. All the co-adjudgers within the year are preferable *pari passu*, as if one adjudication had been led for all their debts. This makes the seisin or diligence on the first adjudication a common right to the rest, who must therefore refund to the owner of that diligence his whole expence laid out in carrying on and completing it. And though that first adjudication should be redeemed, the diligence upon it still subsists as to the rest. This *pari passu* preference, however, does not destroy the legal preference of adjudications led on *debita fundi* (see N° clxix. 15.); nor does it take place in adjudications in implement.

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A new sort of adjudication has been lately introduced into the law of Scotland by the act of the 23d Geo. III. for rendering the payment of the creditors of insolvent debtors more equal and expeditious. Among the many other provisos in that statute for expediting the payment of creditors, and lessening the expence of diligence against the debtor's estate, it is enacted, That upon an order from the court of session or lord ordinary, the bankrupt shall be bound to execute a disposition or dispositions, making over to the trustee or trustees chosen by the creditors the whole estate real and personal, wherever situated; and in case of the bankrupt's refusal, or of the order not being complied with from any other reason, the court or the lord ordinary shall, upon the application of the trustee, issue an act or decree, adjudging the property of the whole sequestered estate to be in the trustee for behoof of the creditors; which shall have the same effect as if the bankrupt had executed the conveyance: and by a subsequent clause in the statute, it is enacted, that this disposition of the heritable estate, together with the order of the court or lord ordinary on which it proceeds, or failing thereof, the decree of adjudication of the court or the lord ordinary, shall within 60 days of the date thereof be registered in the register of abbreviates of adjudications; and shall have the effect to entitle the trustee for behoof of the whole creditors to rank in the same manner upon the heritable estate as if it had been a proper decree of adjudication, obtained at the date of the interlocutor awarding the sequestration; accumulating the whole debts, principal and interest, as at that period, and adjudging for security or payment thereof, so as to rank *pari passu* with any prior effectual adjudication, and within year and day of the same. By this act also, in order to lessen the number of adjudications, and consequently the expence upon a bankrupt estate, it is declared, that intimation shall be made of the first adjudication which is called, so as all creditors who are in readiness may, within such a reasonable time as may be allowed, not exceeding twenty sederunt days, produce their grounds of debt, and be conjoined in the decree to follow on said first adjudication. At the same time it may be proper to mention, that this act is only temporary; and after eight years experience, will probably suffer very considerable alterations, when it shall become necessary to digest another bankrupt law for Scotland.

Sequestration.

10. Before treating of judicial sales of bankrupts estates, the nature of *sequestration* may be shortly explained, which is a diligence that generally ushers in actions of sale. Sequestration of lands is a judicial act of the court of session, whereby the management of an estate is put into the hands of a factor or steward named by the court, who gives security, and is to be accountable for the rents to all having interest. This diligence is competent, either where the right of the lands is doubtful, if it be applied for before either of the competitors has attained possession, or where the estate is heavily

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heavily charged with debts: but, as it is an unfavourable diligence, it is not admitted, unless that measure shall appear necessary for the security of creditors. Subjects not brought before the court by the diligence of creditors, cannot fall under sequestration; for it is the competition of creditors which alone founds the jurisdiction of the court to take the disputed subject into their possession.

11. The court of session who decrees the sequestration has the nomination of the factor, in which they are directed by the recommendation of the creditors. A factor appointed by the session, though the proprietor had not been infeft in the lands, has a power to remove tenants. Judicial factors must, within six months after extracting their factory, make up a rental of the estate, and a list of the arrears due by tenants, to be put into the hands of the clerk of the process, as a charge against themselves, and a note of such alterations in the rental as may afterwards happen: and must also deliver to the clerk annually a scheme of their accounts, charge and discharge, under heavy penalties. They are, by the nature of their office, bound to the same degree of diligence that a prudent man adhibits in his own affairs; they are accountable for the interest of the rents, which they either have, or by diligence might have, recovered, from a year after their falling due. As it is much in the power of those factors to take advantage of the necessities of creditors, by purchasing their debts at an undervalue, all such purchases made either by the factor himself, or to his behoof, are declared equivalent to an acquittance or extinction of the debt. No factor can warrantably pay to any creditor, without an order of the court of session; for he is, by the tenor of his commission, directed to pay the rents to those who shall be found to have the best right to them. Judicial factors are entitled to a salary, which is generally stated at five per cent. of their intromissions: but it is seldom ascertained till their office expires, or till their accounting; that the court may modify a greater or smaller salary, or none, in proportion to the factor's integrity and diligence. Many cases occur, where the court of session, without sequestration, name a factor to preserve the rents from perishing; e. g. where an heir is deliberating whether to enter, where a minor is without tutors, where a succession opens to a person residing abroad; in all which cases the factor is subjected to the rules laid down in act of sederunt, Feb. 13. 1730.

As to sequestrations under the bankrupt act before recited, the reader must necessarily be referred to the act itself; for being only temporary, as before mentioned, it seems quite inconsistent with the plan of this work to enter into a minute detail of the different regulations thereby laid down in cases of sequestration under it.

Sale of bankrupt estates.

12. The word *bankrupt* is sometimes applied to persons whose funds are not sufficient for their debts; and sometimes, not to the debtor, but to his estate. The court of session are empowered, at the suit of any real creditor, to try the value of a bankrupt's estate, and sell it for the payment of his debts.

13. No process of sale, at the suit of a creditor, can proceed without a proof of the debtor's bankruptcy, or at least that his lands are so charged with debts that no prudent persons will buy from him; and therefore the summons of sale must comprehend the debtor's whole estate. The debtor, or his apparent heir, and all the real creditors in possession, must be made parties to the suit; but it is sufficient if the other creditors be called by an edictal citation. The summons of sale contains a conclusion of ranking, or preference of the bankrupt's creditors. In this ranking, first and second terms are assigned to the whole creditors for exhibiting in court (or producing) their rights and diligences; and the decree of certification proceeding thereupon, against the writings not produced, has the same effect in favour of the creditors who have produced their rights, as if that decree had proceeded upon an action of reduction improbation. See N° clxxxiii. 3. By the late bankrupt act, the sale may precede the ranking of the creditors, unless the court, upon application of the creditors, or any of them, shall find sufficient cause to delay the sale. The irredeemable property of the lands is adjudged by the court to the highest offerer at the sale. The creditors receiving payment must grant to the purchaser absolute warrandice, to the extent of the sum received by them; and the lands purchased are declared disburdened of all debts or deeds of the bankrupt or his ancestors, either on payment of the price by the purchaser to the creditors according to their preference, or on consignation of it. By the act 1695, purchasers were bound to consign the price in the hands of the magistrates of Edinburgh; but by § 5. of the above act, they may consign it in the Royal Bank or Bank of Scotland. The only remedy provided to such creditors as judge themselves hurt by the sale or division of the price, even though they should be minors, is an action for recovering their share of the price against the creditors who have received it.

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Ranking of creditors.

14. The expence of those processes is disbursed by the factor out of the rents in his hands; by which the whole burden of such expence falls upon the posterior creditors.

15. Apparent heirs are entitled to bring actions of sale of the estates belonging to their ancestors, whether bankrupt or not; the expence of which ought to fall upon the pursuer, if there is any excrescence of the price, after payment of the creditors: but if there be no excrescence, the creditors, who alone are gainers by the sale, ought to bear the charge of it.

16. As processes of ranking and sale are designed for the common interest of all the creditors, no diligence carried on or completed during their pendency ought to give any preference in the competition; *pendente lite, nihil innovandum.*

17. It is a rule in all real diligences, that where a creditor is preferable on several different subjects, he cannot use his preference arbitrarily, by favouring one creditor more than another; but must allocate his universal or catholic debt proportionally against all the subjects or parties whom it affects. If it is material to such creditor to draw his whole payment out of any one fund, he may apply his debt so as may best secure himself: but that inequality will be rectified as to the posterior creditors, who had likewise by their rights and diligences, affected the subjects out of which he drew his payment, by obliging him to assign in their favour his right upon the separate subjects which he did not use in the ranking; by which they may recur against these separate subjects for the shares which the debt

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debt preferred might have drawn out of them. As the obligation to assign is founded merely in equity, the catholic creditor cannot be compelled to it, if this assigning shall weaken the preference of any separate debt vested in himself, affecting the special subject sought to be assigned. But if a creditor upon a special subject shall acquire from another a catholic right, or a catholic creditor shall purchase a debt affecting a special subject, with a view of creating to the special debt a higher degree of preference than was naturally due to it, by an arbitrary application of the catholic debt, equity cannot prevent him from assigning in favour of the creditor excluded by such application, especially if, prior to the purchase, the subject has become litigious by the process of ranking.

II. MOVEABLE RIGHTS.

THE law of heritable rights being explained, *Moveable* Rights fall next to be considered; the doctrine of which depends chiefly on the nature of obligations.

SECT. XIII. *Of Obligations and Contracts in general.*

clxxiii. Obligation.

1. An obligation is a legal tie, by which one is bound to pay or perform something to another. Every obligation on the person obliged implies an opposite right in the creditor, so that what is a burden in regard to the one is a right with respect to the other; and all rights founded on obligation are called *personal*. There is this essential difference between a real and a personal right, that a *jus in re*, whether of property, or of an inferior kind, as servitude, entitles the person vested with it to possess the subject as his own; or if he is not in possession, to demand it from the possessors: whereas the creditor in a personal right has only *jus ad rem*, or a right to compel the debtor to fulfil his obligation; without any right in the subject itself, which the debtor is bound to transfer to him. One cannot oblige himself, but by a present act of the will. A bare resolution, therefore, or purpose, to be obliged, is alterable at pleasure.

Division of obligations.

2. Obligations are either, (1.) Merely natural, where one person is bound to another by the law of nature, but cannot be compelled by any civil action to the performance. Thus, though deeds granted by a minor having curators, without their consent, are null, yet the minor is naturally obliged to perform such deeds; and parents are naturally obliged to provide their children in reasonable patrimonies. Natural obligations entitle the creditor to retain what he has got in virtue thereof, without being subjected to restore it. (2.) Obligations are merely civil, which may be sued upon by an action, but are elided by an exception in equity; this is the case of obligations granted through force or fear, &c. (3.) Proper or full obligations, are those which are supported both by equity and the civil sanction.

3. Obligations may also be divided into, (1.) Pure, to which neither day nor condition is adjected. These may be exacted immediately. (2.) Obligations (*ex die*), which have a day adjected to their performance. In these, *dies statim cedit, sed non venit*; a proper debt arises from the date of the obligation, because it is certain that the day will exist; but the execution is suspended till the lapse of that day. (3.) Conditional obligations; in which there is no proper debt (*dies non cedit*) till the condition be purified, because it is possible the condition may never exist; and which therefore are said to create only the hope of a debt; but the granter, even of these, has no right to resile. An obligation, to which a day is adjected that possibly may never exist, implies a condition; *dies incertus pro conditione habetur*. Thus, in the case of a provision to a child, payable when he attains to the age of fourteen, if the child dies before that age, the provision falls.

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4. Obligations, when considered with regard to their cause, were divided by the Romans into those arising from contract, quasi contract, delict, and quasi delict: but there are certain obligations, even full and proper ones, which cannot be derived from any of these sources, and to which Lord Stair gives the name of *obediential*. Such as the obligation on parents to aliment or maintain their children; which arises singly from the relation of parent and child, and may be enforced by the civil magistrate. Under parents are comprehended, the mother, grandfather, and grandmother, in their proper order. This obligation on parents extends to the providing of their issue in all the necessaries of life, and giving them suitable education. It ceases, when the children can earn a livelihood by their own industry; but the obligation on parents to maintain their indigent children, and reciprocally on children to maintain their indigent parents, is perpetual. This obligation is, on the father's death, transferred to the eldest son, the heir of the family; who, as representing the father, must aliment his younger brothers and sisters: the brothers are only entitled to alimony till their age of twenty-one, after which they are presumed able to do for themselves; but the obligation to maintain the sisters continues till their marriage. In persons of lower rank, the obligation to aliment the sisters ceases after they are capable of subsisting by any service or employment.

5. All obligations, arising from the natural duty of restitution, fall under this class; thus, things given upon the view of a certain event, must be restored, if that event does not afterwards exist: thus also, things given *ob turpem causam*, where the turpitude is in the receiver and not in the giver, must be restored. And on the same principle, one upon whose ground a house is built or repaired by another, is obliged, without any covenant, to restore the expence laid out upon it, in so far as it has been profitable to him.

Contract

6. A contract is the voluntary agreement of two or more persons, whereby something is to be given or performed upon one part, for a valuable consideration, either present or future, on the other part. Consent, which is implied in agreement, is excluded, (1.) By error in the essentials of the contract: for, in such case, the party does not properly contract, but errs or is deceived; and this may be also applied to contracts which take their rise from fraud or imposition. (2.) Consent is excluded by such a degree of restraint upon any of the contracting parties, as extorts the agreement; for where violence or threatening are used against a person, his will has really no part in the contract.

Loan.

7. Loan, or *mutuum*, is that contract which obliges a person, who has borrowed any fungible subject from another, to restore to him as much of the same kind,

and

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and of equal goodness. Whatever receives its estimation in number, weight, or measure, is a fungible; as corn, wine, current coin, &c. The only proper subjects of this contract are things which cannot be used without either their extinction or alienation: hence the property of the thing lent is necessarily transferred by delivery to the borrower, who consequently must run all the hazards either of its deterioration or its perishing, according to the rule, *res perit suo domino*. Where the borrower neglects to restore at the time and place agreed on, the estimation of the thing lent must be made according to its price at that time and in that place; because it would have been worth so much to the lender, if the obligation had been duly performed. If there is no place nor time stipulated for, the value is to be stated according to the price that the commodity gave when and where it was demanded. In the loan of money, the value put on it by public authority, and not its intrinsic worth, is to be considered. This contract is one of those called by the Romans *unilateral*, being obligatory only on one part; for the lender is subjected to no obligation: the only action therefore that it produces, is pointed against the borrower, that he may restore as much in quantity and quality as he borrowed, together with the damage the lender may have suffered through default of due performance.

Commodate.

8. Commodate is a species of loan, gratuitous on the part of the lender, where the thing lent may be used, without either its perishing or its alienation. Hence, in this sort of loan, the property continues with the lender; the only right the borrower acquires in the subject is its use, after which he must restore the individual thing that he borrowed: consequently, if the subject perishes, it perishes to the lender, unless it has perished by the borrower's fault. What degree of fault or negligence makes either of the contracting parties liable to the other in damages, is comprehended under the following rules. Where the contract gives a mutual benefit to both parties, each contractor is bound to adhibit a middle sort of diligence, such as a man of ordinary prudence uses in his affairs. Where only one of the parties has benefit by the contract, that party must use exact diligence; and the other who has no advantage by it, is accountable only for dole, or for gross omissions, which the law construes to be dole. Where one employs less care on the subject of any contract which implies an exuberant trust, than he is known to employ in his own affairs, it is considered as dole.

9. Hence it will appear that this is a *bilateral* contract; the borrower must be exactly careful of the thing lent, and restore it at the time fixed by the contract, or after that use is made of it for which it was lent: if he puts it to any other use, or neglects to restore it at the time covenanted, and if the thing perishes thereafter, even by mere accident, he is bound to pay the value. On the other part, the lender is obliged to restore to the borrower such of the expences disbursed by him on that subject as arose from any uncommon accident, but not those that naturally attend the use of it. Where a thing is lent gratuitously, without specifying any time of re-delivery, it constitutes the contract of *precarium*, which is revocable at the lender's pleasure, and, being entered into from a personal regard to the borrower, ceases by his death.

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Depositation.

10. Depositation is also a *bilateral* contract, by which one who has the custody of a thing committed to him (the depositary) is obliged to restore it to the depositor. If a reward is bargained for by the depositary for his care, it resolves into the contract of location. As this contract is gratuitous, the depositary is only answerable for the consequences of gross neglect; but after the deposit is redemanded, he is accountable even for casual misfortunes. He is entitled to a full indemnification for the losses he has sustained by the contract, and to the recovery of all sums expended by him on the subject.

Nautæ, cauponæ, stabularii.

11. An obligation arises without formal paction, barely by a traveller's entering into an inn, ship, or stable, and there depositing his goods, or putting up his horses; whereby the innkeeper, shipmaster, or stabler, is accountable, not only for his own facts and those of his servants (which is an obligation implied in the very exercise of these employments), but of the other guests or passengers; and, indeed, in every case, unless where the goods have been lost *damno fatali*, or carried off by pirates or house-breakers. Not only the masters of ships, but their employers, are liable each of them for the share that he has in the ship; but by the present custom of trading nations, the goods brought into a ship must have been delivered to the master or mate, or entered into the ship books. Carriers fall within the intendment of this law; and practice has extended it to vintners within borough. The extent of the damage sustained by the party may be proved by his own oath *in litem*.

Sequestration.

12. Sequestration, whether voluntarily consented to by the parties, or authorized by the judge, is a kind of deposite; but as the office of sequestree, to whose care the subject in dispute is committed, is not considered as gratuitous, he cannot throw it up at pleasure, as a common depositary may do; and is liable in the middle degree of diligence. Consignation of money is also a deposite. It may be made, either where the debt is called in question by the debtor, as in suspensions; or where the creditor refuses to receive his money, as in wadsets, &c. The risk of the consigned money lies on the consigner, where he ought to have made payment, and not consignation; or has consigned only a part; or has chosen for consignatory, a person neither named by the parties nor of good credit. The charger, or other creditor, runs the risk, if he has charged for sums not due, or has without good reason refused payment, by which refusal the consignation became necessary. It is the office of a consignatory, to keep the money in safe custody till it is called for: if therefore he puts it out at interest, he must run the hazard of the debtor's insolvency; but for the same reason, though he should draw interest for it, he is liable in none to the consigner.

Consignation.

Pledge.

13. Pledge, when opposed to wadset, is a contract, by which a debtor puts into the hands of his creditor a special moveable subject in security of the debt, to be re-delivered on payment. Where a security is established by law to the creditor, upon a subject which continues in the debtor's possession, it has the special name of an hypothec. Tradesmen and ship carpenters have an hypothec on the house or ship repaired, for the materials and other charges of reparation; but not for the expence of building a new ship. This, however,

Hypothec.

must

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must not now be understood to apply universally: for the court of session, in different cases which lately occurred before them, and founding upon the law and practice of England in similar cases, have found, that no hypothec exists for the expence of repairs done in a *home* port. Owners of ships have an hypothec on the cargo for the freight; heritors on the fruits of the ground; and landlords on the *invecta et illata*, for their rents. Writers also, and agents, have a right of hypothec, or more properly of retention, in their constituent's writings, for their claim of pains and disbursements. A creditor cannot, for his own payment, sell the subject impignorated, without applying to the judge ordinary for a warrant to put it up to public sale or roup; and to this application the debtor ought to be made a party.

Sect. XIV. *Of Obligations by Word or Writ.*

clxxiv. Verbal agreement.

1. The appellation of *verbal* may be applied to all obligations to the constitution of which writing is not essential, which includes both real and consensual contracts; but as these are explained under separate titles, obligations *by word*, in the sense of this rubric, must be restricted, either to promises, or to such verbal agreements as have no special name to distinguish them. Agreement implies the intervention of two different parties, who come under mutual obligations to one another. Where nothing is to be given or performed but on one part, it is properly called a *promise*; which, as it is gratuitous, does not require the acceptance of him to whom the promise is made. An offer, which must be distinguished from a promise, implies something to be done by the other party; and consequently is not binding on the offerer, till it be accepted, with its limitations or conditions, by him to whom the offer is made; after which, it becomes a proper agreement.

Writing.

2. Writing must necessarily intervene in all obligations and bargains concerning heritable subjects, though they should be only temporary; as tacks, which, when they are verbal, last but for one year. In these, no verbal agreement is binding, though it should be referred to the oath of the party; for, till writing is adhibited, law gives both parties a right to resile, as from an unfinished bargain; which is called locus *pœnitentiæ*. If, upon a verbal bargain of lands, part of the price shall be paid by him who was to purchase, the *interventus rei*, the actual payment of money, creates a valid obligation, and gives a beginning to the contract of sale: and, in general, wherever matters are no longer entire, the right to resile seems to be excluded. An agreement, whereby a real right is passed from, or restricted, called *pactum liberatorium*, may be perfected verbally; for freedom is favourable, and the purpose of such agreement is rather to dissolve than to create an obligation. Writing is also essential to bargains made under condition that they shall be reduced into writing; for in such cases, it is *pars contractus*, that, till writing be adhibited, both parties shall have liberty to withdraw. In the same manner, verbal or nuncupative testaments are rejected by our law; but verbal legacies are sustained, where they do not exceed 100l. Scots.

3. Anciently, when writing was little used, deeds were executed by the party appending his seal to them in presence of witnesses. For preventing frauds that might happen by appending seals to false deeds, the subscription also of the granter was afterwards required, and, if he could not write, that of a notary. As it might be of dangerous consequences to give full force to the subscription of the parties by initials, which is more easily counterfeited; our practice, in order to sustain such subscription, seems to require a proof, not only that the granter used to subscribe in that way, but that *de facto* he had subscribed the deed in question; at least, such proof is required, if the instrumentary witnesses be still alive.

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4. As a further check, it was afterwards provided, that all writings carrying any heritable right, and other deeds of importance, be subscribed by the principal parties, if they can subscribe; otherwise, by two notaries, before four witnesses specially designed. The subsequent practice extended this requisite of the designation of the witnesses to the case where the parties themselves subscribed. Custom has construed obligations for sums exceeding 100l. Scots, to be obligations of importance. In a divisible obligation, ex. gr. for a sum of money, though exceeding 100l. the subscription of one notary is sufficient, if the creditor restricts his claim to 100l.: But in an obligation indivisible, e. g. for the performance of a fact, if it be not subscribed in terms of the statute, it is void. When notaries thus attest a deed, the attestation or docquest must specially express that the granter gave them a mandate to sign; nor is it sufficient that this be mentioned in the body of the writing.

5. In every deed, the name of him who writes it, with his dwelling place or other mark of distinction, must be inserted. The witnesses must both subscribe as witnesses, and their names and designations be inserted in the body of the deed. And all subscribing witnesses must know the granter, and either see him subscribe, or hear him acknowledge his subscription; otherwise they are declared punishable as accessary to forgery. Deeds, decrees, and other securities, consisting of more than one sheet, may be written by way of book, in place of the former custom of pasting together the several sheets, and signing the joinings on the margin; provided each page be signed by the granter, and marked by its number, and the testing clause express the number of pages.

Solemnities of notorial instruments, &c.

6. Instruments of seisin are valid, if subscribed by one notary, before a reasonable number of witnesses; which is extended by practice to instruments of resignation. Two witnesses are deemed a reasonable number to every deed that can be executed by one notary. It is not necessary that the witnesses to a notorial instrument or execution see the notary or messenger sign; for they are called as witnesses to the transaction which is attested, and not to the subscription of the person attesting.

7. A new requisite has been added to certain deeds since the Union, for the benefit of the revenue: They must be executed on stamped paper, or parchment, paying a certain duty to the crown. These duties must also be paid before wrote upon, under a penalty; but they are so numerous and complex, that it would be tedious, even if it fell under our plan, to enter into an enumeration of them. They will be found at length

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length in Swinton's Abridgement, *voce Stamps*, to which the reader is referred. Certain judicial deeds, such as bail bonds, bonds of cautionry, in suspensions, &c. are exempted, and do not require stamps, as will be seen from the several acts referred to by the compiler of the above abridgement of the statutes.

Blank bonds.

8. The granter's name and designation are essential, not properly as solemnities, but because no writing can have effect without them. Bonds were, by our ancient practice, frequently executed without filling up the creditor's name; and they passed from hand to hand, like notes payable to the bearer: But as there was no method for the creditor of a person possessed of these to secure them for his payment, all writings taken blank in the creditor's name are declared null, as covers to fraud; with the exception of indorsations of bills of exchange.

Privileged deeds.

9. Certain privileged writings do not require the ordinary solemnities. 1. Holograph deeds (written by the granter himself) are effectual without witnesses. The date of no holograph writing, except a bill of exchange (see next parag.) can be proved by the granter's own assertion, in prejudice either of his heir or his creditors, but must be supported by other adminicles. 2. Testaments, if executed where men of skill and business cannot be had, are valid though they should not be quite formal: and let the subject of a testament be ever so valuable, one notary signing for the testator, before two witnesses, is in practice sufficient. Clergymen were frequently notaries before the Reformation; and, though they were afterwards prohibited to act as notaries, the case of testaments is excepted; so that these are supported by the attestation of one minister, with two witnesses. 3. Discharges to tenants are sustained without witnesses, from their presumed rusticity, or ignorance in business. 4. Missive letters *in re mercatoria*, commissions, and fitted accounts in the course of trade, and bills of exchange, though they are not holograph, are, from the favour of commerce, sustained without the ordinary solemnities.

Bills of exchange.

10. A bill of exchange is an obligation in the form of a mandate, whereby the drawer or mandate desires him to whom it is directed, to pay a certain sum, at the day and place therein mentioned, to a third party. Bills of exchange are drawn by a person in one country to his correspondent in another; and they have that name, because it is the exchange, or the value of money in one place compared with its value in another, that generally determines the precise extent of the sum contained in the draught. The creditor in the bill is sometimes called the possessor, or *porteur*. As parties to bills are of different countries, questions concerning them ought to be determined by the received custom of trading nations, unless where special statute interposes. For this reason, bills of exchange, though their form admits not of witnesses, yet prove their own dates, in questions either with the heir or creditors of the debtor; but this doctrine is not extended to inland bills payable to the drawer himself.

Their solemnities and obligations.

11. A bill is valid, without the designation either of the drawer or of the person to whom it is made payable: It is enough, that the drawer's subscription appears to be truly his; and one's being possessor of a bill marks him out to the creditor if he bears the name given in the bill to the creditor: Nay, though the person drawn on should not be designed, his acceptance presumes that it was he whom the drawer had in his eye. Bills drawn blank, in the creditor's name, fall under the statutory nullity; for though indorsations of bills are excepted from it, bills themselves are not. Not only the person drawn upon must sign his acceptance, but the drawer must sign his draught, before any obligation can be formed against the accepter: Yet it is sufficient in practice, that the drawer signs before the bill be produced in judgment; though it should be after the death both of the creditor and accepter. A creditor in a bill may transmit it to another by indorsation, though the bill should not bear *to his order;* by the same rule that other rights are transmissible by assignation, though they do not bear to *assignees*.

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Obligations.

12. The drawer, by signing his draught, becomes liable for the value to the creditor in the bill, in case the person drawn upon either does not accept, or after acceptance does not pay; for he is presumed to have received value from the creditor at giving him the draught, though it should not bear *for value received:* But, if the drawer was debtor to the creditor in the bill before the draught, the bill is presumed to be given towards payment of the debt, unless it expressly bears *for value*. The person drawn upon, if he refuses to accept, while he has the drawer's money in his hand, is liable to him in damages. As a bill presumes value from the creditor, indorsation presumes value from the indorsee; who therefore, if he cannot obtain payment from the accepter, has recourse against the indorser, unless the bill be indorsed in these words, *without recourse*.

13. Payment of a bill, by the accepter, acquits both the drawer and him at the hands of the creditor: but it entitles the accepter, if he was not the drawer's debtor, to an action of recourse against him; and, if he was, to a ground of compensation. Where the bill does not bear value in the hands of the person drawn upon, it is presumed that he is not the drawer's debtor, and consequently he has recourse against the drawer, *ex mandato*.

14. Bills, when indorsed, are considered as so many bags of money delivered to the onerous indorsee; which therefore carry right to the contents, free of all burdens that do not appear on the bills themselves. Hence, a receipt or discharge, by the original creditor, if granted on a separate paper, does not exempt the accepter from second payment to the indorsee; hence, also, no ground of compensation competent to the accepter against the original creditor can be pleaded against the indorsee: but, if the debtor shall prove, by the oath of the indorsee, either that the bill is indorsed to him for the indorser's own behoof, or that he paid not the full value for the indorsation, the indorsee is justly considered as but a name; and therefore all exceptions, receivable against the original creditor, will be sustained against him. A protested bill, after registration, cannot be transmitted by indorsation, but by assignation.

Negociation.

15. Bills must be negociated by the possessor, against the person drawn upon, within a precise time, in order to preserve recourse against the drawer. In bills payable so many days after sight, the creditor has a discretionary power of fixing the payment somewhat sooner or later, as his occasions shall require. Bills payable on a day certain, need not be presented for acceptance till the day of payment, because that day can neither

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neither be prolonged nor shortened by the time of acceptance. For the same reason the acceptance of bills, payable on a precise day, need not be dated: but, where a bill is drawn payable so many days after sight, it must; because there the term of payment depends on the date of acceptance.

Days of grace.

16. Though bills are, in strict law, due the very day on which they are made payable, and may therefore be protested on the day thereafter; yet there are three days immediately following the day of payment, called *days of grace*, within any of which the creditor may protest the bill; but if he delay protesting till the day after the last day of grace, he loses his recourse. Where a bill is protested, either from not acceptance or not payment, the dishonour must be notified to the drawer or indorser, within three posts at farthest. This strictness of negociation is confined to such bills as may be protested by the possessor upon the third day of grace: where, therefore, bills are indorsed after the days of grace are expired, the indorsee is left more at liberty, and does not lose his recourse, though he should not take a formal protest for not payment, if, within a reasonable time, he shall give the indorser notice of the accepter's refusing to pay. Not only does the possessor, who neglects strict negociation, lose his recourse against the the drawer, where the person drawn upon becomes afterwards bankrupt; but though he should continue solvent: for he may in that case recover payment from the debtor, and so is not to be indulged in an unnecessary process against the drawer, which he has tacitly renounced by his negligence. Recourse is preserved against the drawer, though the bill should not be duly negociated, if the person drawn upon was not his debtor; for there the drawer can qualify no prejudice by the neglect of diligence, and he ought not to have drawn on one who owed him nothing.

Privileges of bills by statute.

17. The privileges superadded to bills by statute are, that though, by their form, they can have no clause of registration, yet, if duly protested, they are registrable within six months after their date in case of not acceptance, or in six months after the term of payment in the case of not payment; which registration is made the foundation of summary diligence, either against the drawer or indorser in the case of not acceptance, or against the accepter in the case of not payment. This

Inland bills.

is extended to inland bills, i. e. bills both drawn and made payable in Scotland. After acceptance, summary diligence lies against no other than the accepter; the drawer and indorser must be pursued by an ordinary action. It is only the principal sum in the bill, and interest, that can be charged for summarily: the exchange, when it is not included in the draught, the re-exchange incurred by suffering the bill to be protested and returned, and the expence of diligence, must all be recovered by an ordinary action; because these are not liquid debts, and so must be previously constituted.

Certain bills not privileged.

18. Bills, when drawn payable at any considerable distance of time after date, are denied the privileges of bills: for bills are intended for currency, and not to lie as a security in the creditor's hands. Bills are not valid which appear *ex facie* to be donations. No extrinsic stipulation ought to be contained in a bill which deviates from the proper nature of bills: hence, a bill to which a penalty is adjected, or with a clause of interest from the date, is null. Inland precepts drawn, not for money, the medium of trade, but for fungibles, are null, as wanting writer's name and witnesses. It is not an agreed point whether promissory notes, without writer and witnesses, unless holograph, are probative.

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19. So stood the law of Scotland, in regard to bills and promissory notes, previous to the statute 12 Geo. III. By that statute, however, the law of Scotland has undergone very material alterations. They are declared to have the same privileges, and to prescribe in six years after the term of payment. Bank notes and post bills are excepted from this prescription: nor does it run during the years of the creditor's minority. Inland bills and promissory notes must be protested within the days of grace, to secure recourse; and the dishonour notified within 14 days after the protest. Summary diligence may pass not only against the accepter, but likewise against the drawer, and all the indorsees jointly and severally; and at the instance of any indorsee, though the bill was not protested in his name, upon his producing a receipt or letter from the protesting indorsee. This act was in force only for seven years after 15th May 1772, and to the end of the then next session of parliament. But as it was found by experience that it had been of great advantage to Scotland, it was made perpetual by the late act 23 Geo. III. so that it has now become a permanent part of the law of Scotland.

Later alterations as to bills and promissory notes.

20. As for the solemnities essential to deeds signed in a foreign country, where they come to receive execution in Scotland, it is a general rule, that no law can be of authority beyond the dominions of the lawgiver. Hence, in strictness, no deed, though perfected according to the law of the place where it is signed, can have effect in another country where different solemnities are required to a deed of that sort. But this rigour is so softened *ex comitate*, by the common consent of nations, that all personal obligations granted according to the law of that country where they are signed, are effectual everywhere; which obtains in obligations to convey heritage. Conveyances themselves, however, of heritable subjects must be perfected according to the law of the country where the heritage lies, and from which it cannot be removed.

Solemnities of deeds signed in a foreign country.

21. A writing, while the granter keeps it under his own power or his doer's, has no force; it becomes obligatory, only after it is delivered to the grantee himself, or found in the hands of a third person. As to which last, the following rules are observed. A deed found in the hands of one who is doer both for the granter and grantee, is presumed to have been put in his hands as doer for the grantee. The presumption is also for delivery, if the deed appears in the hands of one who is a stranger to both. Where a deed is deposited in the hands of a third person, the terms of depositation may be proved by the oath of the depositary, unless where they are reduced into writing. A deed appearing in the custody of the grantee himself is considered as his absolute right; insomuch that the granter is not allowed to prove that it was granted in trust, otherwise than by a written declaration signed by the trustee, or by his oath.

Delivery and depositation of deeds.

22. The following deeds are effectual without delivery. (1.) Writings containing a clause dispensing with the delivery; these are of the nature of revocable deeds, where the death of the granter is equivalent to delivery,

What deeds effectual without delivery.

Law of Scotland. delivery, because after death there can be no revocation. (2.) Deeds in favour of children, even natural ones; for parents are the proper custodiars or keepers of their children's writings. From a similar reason, postnuptial settlements by the husband to the wife need no delivery. (3.) Rights which are not to take effect till the granter's death, or even where he reserves an interest to himself during his life; for it is presumed he holds the custody of these, merely to secure to himself such reserved interest. (4.) Deeds which the granter lay under an antecedent natural obligation to execute, *e. g.* rights granted to a cautioner for his relief. (5.) Mutual obligations, *e. g.* contracts for every such deed, the moment it is executed, is a common evident to all the parties contractors. Lastly, The publication of a writing by registration is equivalent to delivery.

Sect. XV. *Of Obligations and Contracts arising from Consent, and of accessory Obligations.*

elxv. Consensual contracts. 1. Contracts consensual (*i. e.* which might, by the Roman law, be perfected by the sole consent, without the intervention either of things or of writing), are *sale*, *permutation*, *location*, *society*, and *mandate*. Where the subject of any of these contracts is heritable, writing is necessary.

Sale. 2. *Sale* is a contract, by which one becomes obliged to give something to another, in consideration of a certain price in current money to be paid for it. Things consisting merely in hope, may be the subject of this contract, as the draught of a net. Commodities, where their importation or use is absolutely prohibited, cannot be the subject of sale; and even in run goods, no action lies against the vender for the delivery, if the buyer knew the goods were run. So far indeed has this principle been carried, and so anxious have our judges been to put a stop to the practice of smuggling, that in different cases which have occurred of action being brought at the instance of a foreign merchant against persons resident in Scotland for payment of goods which had been smuggled, a distinction has been made betwixt the case of the foreign merchant being or not being a native of Scotland. Where the foreign merchant was a native of Scotland, it has been presumed that he was acquainted with the revenue law of the country, and that he was in a manner *versans in re illicita*; and therefore action has been denied for recovery of the price of such goods: but where, on the other hand, the foreign merchant was not a native of Scotland, nowise amenable to, and even presumed ignorant of its laws, he has with justice been allowed action for the price of such goods, unless it were shown that he had in fact been *particeps criminis*, by aiding the smuggle. The same principle has regulated the decisions in the courts of England in cases of a similar nature, which have within these few years come before them.

3. Though this contract may be perfected before delivery of the subject, the property remains till then with the vender: (See N° clxii. 9.). Yet till delivery, the hazard of its deterioration falls on the purchaser, because he has all the profits arising from it after the sale. On the other hand, the subject itself perishes to the vender: (1.) If it should perish through his fault, or after his undue delay to deliver it. (2.) If a subject is sold as a fungible, and not as an individual, or *corpus*, e. g. a quantity of farm-wheat, sold without distinguishing the parcel to be delivered from the rest of the farm. (3.) The *periculum* lies on the vender till delivery, if he be obliged by a special article in the contract to deliver the subject at a certain place. Law of Scotland.

Location. 4. *Location* is that contract where a hire is stipulated for the use of things, or for the service of persons. He who lets his work or the use of his property to hire, is the locator or lessor; and the other, the conductor or lessee. In the location of things, the lessor is obliged to deliver the subject, fitted to the use it was let for; and the lessee must preserve it carefully, put it to no other use, and, after that is over, restore it. Where a workman or artificer lets his labour, and if the work is either not performed according to contract, or if it be insufficient, even from mere unskilfulness, he is liable to his employer in damages, for he ought not, as an artificer, to have undertaken a work to which he was not equal. A servant hired for a certain term is entitled to his full wages, though from sickness or other accident he should be disabled for a part of his time: but if he die before the term, his wages are only due for the time he actually served. If a master dies, or without good reason turns off, before the term, a servant who eats in his house, the servant is entitled to his full wages, and to his maintenance till that term; and, on the other part, a servant who without ground deserts his service, forfeits his wages and maintenance, and is liable to his master in damages.

Society. 5. *Society* or *copartnership* is a contract, whereby the several partners agree concerning the communication of loss and gain arising from the subject of the contract. It is formed by the reciprocal choice which the partners make one of another; and so is not constituted in the case of co-heirs, or of several legatees in the same subject. A copartnership may be so constituted, that one of the partners shall, either from his sole right of property in the subject, or from his superior skill, be entitled to a certain share of the profits, without being subjected to any part of the loss; but a society, where one partner is to bear a certain proportion of loss, without being entitled to any share of the profits, called by the Romans *societas leonina*, is justly reprobated. All the partners are entitled to shares of profit and loss proportioned to their several stocks where it is not otherwise covenanted.

6. As partners are united, from a *delectus personæ*, in a kind of brotherhood, no partner can, without a special power contained in the contract, transfer any part of his share to another. All the partners are bound *in solidum* by the obligation of any one of them, if he subscribe by the *first* or social name of the company; unless it be a deed that falls not under the common course of administration. The company effects are the common property of the society subjected to its debts; so that no partner can claim a division thereof, even after the society is dissolved, till they are paid; and, consequently, no creditor of a partner can, by diligence, carry to himself the property of any part of the common stock, in prejudice of a company creditor: but he may, by arrestment, secure his debtor's share in the company's hands, to be made forthcoming to him at the close of the copartnership, in so far as it is not exhausted by the company debts.

7. Society being founded in the mutual confidence among

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among the *socii*, is dissolved, not only by the renunciation, but by the death of any one of them, if it be not otherwise specially covenanted. A partner who renounces upon unfair views, or at a critical time, when his withdrawing may be fatal to the society, looses his partners from all their engagements to him, while he is bound to them for all the profits he shall make by his withdrawing, and for the loss arising thereby to the company. Not only natural, but civil death, *e. g.* arising from a sentence inflicting capital punishment, makes one incapable to perform the duties of a partner, and consequently dissolves the society. In both cases of death and renunciation, the remaining partners may continue the copartnership, either expressly, by entering into a new contract; or tacitly, by carrying on their trade as formerly. Public trading companies are now every day constituted, with rules very different from those which either obtained in the Roman law, or at this day obtain in private societies. The proprietors or partners in these, though they may transfer their shares, cannot renounce; nor does their death dissolve the company, but the share of the deceased descends to his representative.

A joint trade.

8. A *joint trade* is not a copartnership, but a momentary contract, where two or more persons agree to contribute a sum, to be employed in a particular course of trade, the produce whereof is to be divided among the adventurers; according to their several shares, after the voyage is finished. If, in a joint trade, that partner who is intrusted with the money for purchasing the goods, should, in place of paying them in cash, buy them upon credit, the furnisher who followed his faith alone in the sale, has no recourse against the other adventurers, he can only recover from them what of the buyer's share is yet in their hands. Where any one of the adventurers in a joint trade becomes bankrupt, the others are preferable to his creditors, upon the common stock, as long as it continues undivided, for their relief of all the engagements entered into by them on account of the adventure.

Mandate.

9. *Mandate* is a contract, by which one employs another to manage any business for him; and by the Roman law, it must have been gratuitous. It may be constituted tacitly, by one's suffering another to act in a certain branch of his affairs, for a tract of time together, without challenge. The mandatory is at liberty not to accept of the mandate; and, as his powers are solely founded in the mandant's commission, he must, if he undertakes it, strictly adhere to the directions given him: Nor is it a good defence, that the method he followed was more rational; for in that his employer was the proper judge. Where no special rules are prescribed, the mandatory, if he acts prudently, is secure, whatever the success may be; and he can sue for the recovery of all the expences reasonably disbursed by him in the execution of his office.

10. Mandate may be general, containing a power of administering the mandant's whole affairs; but no mandate implies a power of disposing gratuitously of the constituent's property, nor even of selling his heritage for an adequate price; but a general mandatory may sell such of the moveables as must otherwise perish. No mandatory can, without special powers, transact doubtful claims belonging to his constituent, or refer them to arbiters.

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11. Mandates expire, (1.) By the revocation of the employer, though only tacit, as if he should name another mandatory for the same business. (2.) By the renunciation of the mandatory; even after he has executed a part of his commission, if his office be gratuitous. (3.) By the death either of the mandant or mandatory: But if matters are not entire, the mandate continues in force, notwithstanding such revocation, renunciation, or death. Procuratories of resignation and precepts of seisin are made out in the form of mandates; but, because they are granted for the sole benefit of the mandatory, all of them, excepting precepts of *clarè constat*, are declared (by act 1693) to continue after the death either of the granter or grantee. Deeds which contain a clause or mandate for registration, are for the same reason made registrable after the death of either (by act 1693 and 1696).

12. The favour of commerce has introduced a tacit mandate, by which masters of ships are empowered to contract in name of their exercitors or employers, for repairs, ship-provisions, and whatever else may be necessary for the ship or crew; so as to oblige not themselves only, but their employers. Whoever has the actual charge of the ship is deemed the master, though he should have no commission from the exercitors, or should be substituted by the master in the direction of the ship without their knowledge. Exercitors are liable, whether the master has paid his own money to a merchant for necessaries, or has borrowed money to purchase them. The furnisher or lender must prove that the ship needed repairs, provision, &c. to such an extent; but he is under no necessity to prove the application of the money or materials to the ship's use. If there are several exercitors, they are liable *singuli in solidum*. In the same manner the undertaker of any branch of trade, manufacture, or other land negociation, is bound by the contracts of the institors whom he sets over it, in so far as relates to the subject of the *præpositura*.

Homologation.

13. Contracts and obligations, in themselves imperfect, receive strength by the contractor or his heirs doing any act thereafter which imports an approbation of them, and consequently supplies the want of an original legal consent. This is called *homologation*; and it takes place even in deeds intrinsically null, whether the nullity arises from the want of statutory solemnities or from the incapacity of the granter. It cannot be inferred, (1.) By the act of a person who was not in the knowledge of the original deed; for one cannot approve what he is ignorant of. (2.) Homologation has no place where the act or deed, which is pleaded as such, can be ascribed to any other cause; for an intention to come under an obligation is not presumed.

Quasi-contracts.

14. *Quasi-contracts* are formed without explicit consent, by one of the parties doing something which by its nature either obliges him to the other party, or the other party to him. Under this class may be reckoned tutory, &c. the entry of an heir, *negotiorum gestio*, *indebiti solutio*, communion of goods between two or more common proprietors, and *mercium jactus levandæ navis causa*. *Negotiorum gestio* forms those obligations which arise from the management of a person's affairs, in his absence, by another, without any mandate. As such manager acts without authority from the proprietor, he ought to be liable in exact diligence, unless he has from

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from friendship interposed in affairs which admitted no delay: and he is accountable for his intromissions with interest. On the other part, he is entitled to the recovery of his necessary disbursements on the subject, and to be relieved of the obligations in which he may have bound himself in consequence of the management.

15. *Indebiti solutio*, or the payment to one of what is not due to him, if made through any mistake, either of fact, or even of law, founds him who made the payment in an action against the receiver for repayment (*condictio indebiti*). This action does not lie, (1.) If the sum paid was due *ex equitate*, or by a natural obligation: for the obligation to restore is founded solely in equity. (2.) If he who made the payment knew that nothing was due: for *qui consulto dat quod non debebat, præsumitur donare.*

Right of dividing common property.

16. Where two or more persons become common proprietors of the same subject, either by legacy, gift, or purchase, without the view of copartnership, an obligation is thereby created among the proprietors to communicate the profit and loss arising from the subject, while it remains common: And the subject may be divided at the suit of any having interest. This division, where the question is among the common proprietors, is *according to the valuation of their respective properties:* But where the question is between the proprietors and those having servitudes upon the property, the superfice is only divided, without prejudice to the property. Commonties belonging to the king, or to royal boroughs, are not divisible. Lands lying runrig, and belonging to different proprietors, may be divided, with the exception of borough and incorporated acres; the execution of which is committed to the judge ordinary, or justices of the peace.

Lex Rhodia de jactu.

17. The throwing of goods overboard, for lightening a ship in a storm, creates an obligation, whereby the owners of the ship and goods saved are obliged to contribute for the relief of those whose goods were thrown overboard, so that all may bear a proportional loss of the goods ejected for the common safety. In this contribution, the ship's provisions suffer no estimation. A master who has cut his mast, or parted with his anchor, to save the ship, is entitled to this relief: but if he has lost them by the storm, the loss falls only on the ship and freight. If the ejection does not save the ship, the goods preserved from shipwreck are not liable in contribution. Ejection may be lawfully made, if the master and a third part of the mariners judge that measure necessary, though the owner of the goods should oppose it: and the goods ejected are to be valued at the price that goods of the same sort which are saved shall be afterwards sold for.

Accessory obligations.

18. There are certain obligations which cannot subsist by themselves, but are *accessions* to, or make a part of, other obligations. Of this sort are *fidejussion*, and the *obligation to pay interest*. *Cautionry*, or *fidejussion*, is that obligation by which one becomes engaged as security for another, that he shall either pay a sum, or perform a deed.

Cautionry.

19. A cautioner for a sum of money may be bound, either simply as cautioner for the principal debtor, or conjunctly and severally for and with the principal debtor. The first has, by our customs, the *beneficium ordinis*, or of discussion; by which the creditor is obliged to discuss the proper debtor, before he can insist for payment against the cautioner. Where one is bound as full debtor with and for the principal, or conjunctly and severally with him, the two obligants are bound equally in the same obligation, each *in solidum*; and consequently, the cautioner, though he is but an accessory, may be sued for the whole, without either discussing or even citing the principal debtor. Cautioners for performance of facts by another, or for the faithful discharge of an office (e. g. for factors, tutors, &c.), cannot by the nature of their engagement be bound conjunctly and severally with the principal obligant, because the fact to which the principal is bound cannot possibly be performed by any other. In such engagements, therefore, the failure must be previously constituted against the proper debtor, before action can be brought against the cautioner for making up the loss of the party suffering,

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20. The cautioner, who binds himself at the desire of the principal debtor, has an *actio mandati* or of relief against him, for recovering the principal and interest paid by himself to the creditor, and for necessary damages: which action lies *de jure*, though the creditor should not assign to him on payment. As relief against the debtor is implied in fidejussory obligations, the cautioner, where such relief is cut off, is no longer bound: hence the defence of prescription frees the cautioner, as well as the principal debtor.

21. But (1.) Where the cautionry is interposed to an obligation merely natural, the relief is restricted to the sums that have really turned to the debtor's profit. (2.) A cautioner who pays without citing the debtor, loses his relief, in so far as the debtor had a relevant defence against the debt, in whole or in part. Relief is not competent to the cautioner, till he either pays the debt, or is distressed for it; except, 1st, Where the debtor is expressly bound to deliver to the cautioner his obligation cancelled, against a day certain, and has failed; or, 2dly, Where the debtor is *vergens ad inopiam;* in which case the cautioner may, by proper diligence, secure the debtor's funds for his own relief, even before payment or distress.

22. A right of relief is competent *de jure* to the cautioner, who pays, against his co-cautioners, unless where the cautioner appears to have renounced it. In consequence of this implied relief, a creditor, if he shall grant a discharge to any one of the cautioners, must, in demanding the debt from the others, deduct that part as to which he has cut off their relief by that discharge. Where the principal debtor, in a bond in which the cautioner is bound, grants bond of corroboration with a new cautioner, both cautioners, as they intervene for the same debt, and at the desire of the same debtor, have a mutual relief against each other; but where the cautioner in the first bond signs as a principal obligant in the corroboration, the cautioner in the new bond, it would seem, would be entitled to a total relief against the first cautioner. At same time, the decisions of the court of session are not perfectly at one upon this branch of the doctrine of cautionry.

23. Cautionry is also *judicial*, as in a suspension. It is sufficient to loose the cautioner, that when he became bond, the suspender had good reason to suspend, e. g. if the charger had at that period no title, or had not then performed his part, though these grounds of suspension

Judicial cautionry.

Law of Scotland.

pension should be afterwards taken off. In all maritime causes, where the parties are frequently foreigners, the defender must give caution *judicio sisti et judicatum solvi:* such cautioner gets free by the death of the defender before sentence; but he continues bound, though the cause should be carried from the admiral to the court of session. This sort of caution is only to be exacted in causes strictly maritime.

24. It happens frequently, that a creditor takes two or more obligants bound to him, all as principal debtors, without fidejussion. Where they are so bound, for the performance of facts that are in themselves indivisible, they are liable each for the whole or *singuli in solidum.* But, if the obligation be for a sum of money, they are only liable *pro rata;* unless, (1.) Where they are in express words bound conjunctly and severally; or, (2.) In the case of bills or promissory notes. One of several obligants of this sort, who pays the whole debt, or fulfils the obligation, is entitled to a proportional relief against the rest; in such manner, that the loss must, in every case, fall equally upon all the solvent obligants.

Interest of money.

25. Obligations for sums of money are frequently accompanied with an obligation for the annualrent or interest thereof. *Interest* (*usura*) is the profit due by the debtor of a sum of money, to the creditor for the use of it. The canon law considered the taking of interest as unlawful: the law of Moses allowed it to be exacted from strangers: and all the reformed nations of Europe have found it necessary, after the example of the Romans, to authorise it at certain rates fixed by statute. Soon after the Reformation, our legal interest was fixed at the rate of 10 per cent. per annum: from which time it had been gradually reduced, till at last, by 12 Ann. stat. 2. c. 16. it was brought to five per cent. and has continued at that rate ever since.

26. Interest is due, either *by law* or *by paction.* It is due *by law*, either *from the force of statute*, under which may be included acts of sederunt, or *from the nature of the transaction.* Bills of exchange, and inland bills, though they should not be protested, carry interest from their date in case of not acceptance; or from the day of their falling due, in case of acceptance and not payment. Where a bill is accepted, which bears no term of payment, or which is payable on demand, no interest is due till demand be made of the sum, the legal voucher of which is a notorial protest. Interest is due by a debtor after denunciation, for all the sums contained in the diligence, even for that part which is made up of interest. Sums paid by cautioners on distress carry interest, not only as to the principal sum in the obligation, but as to the interest paid by the cautioner. Factors named by the court of session are liable for interest, by a special act of sederunt; see N° clxxii. 11.

27. It arises *ex lege*, or from the nature of the transaction, that a purchaser in a sale is liable in interest for the price of the lands bought from the term of his entry, though the price should be arrested in his hands, or though the seller should not be able to deliver to him a sufficient progress or title to the lands; for no purchaser can in equity enjoy the fruits of the lands, while at the same time he retains the interest of the price: but lawful consignation of the price made by a purchaser, upon the refusal of the person's having right to receive it, stops the currency of interest. Where one intermeddles with money belonging to another which carries interest, he ought to restore it *cum omni obventione et causa;* and is therefore liable in the interest of it, as being truly an accessory of the subject itself. It is also from the nature of the transaction, that interest is in certain cases allowed to merchants or others in name of damages.

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28. Interest is due *by express paction*, where there is a clause in a bond or obligation, by which money is made to carry interest. An obligation is not lawful, where it is agreed on, that the yearly interest of the sum lent, if it should not be paid punctually as it falls due, shall be accumulated into a principal sum bearing interest; but an obligation may be lawfully granted, not only for the sum truly lent, but for the interest to the day at which the obligation is made payable, whereby the intermediate interest is accumulated into a principal sum from the term of payment. Interest may be also due by *implied paction:* Thus where the interest upon a debt is by a letter promised for time past, such promise implies a paction for interest as long as the debt remains unpaid; thus also the use of payment of interest presumes a paction, and when interest is expressed for one term, it is presumed to be bargained for till payment.

General properties of obligation.

29. The subject matter of all obligations consists either *of things* or *of facts.* Things exempted from commerce cannot be the subject of obligation. (See N° clxii. 2. One cannot be obliged to the performance of a fact naturally impossible; nor of a fact in itself immoral, for that is also in the judgment of law impossible. Since impossible obligations are null, no penalty or damage can be incurred for non-performance: but it is otherwise, if the fact be in itself possible, though not in the debtor's power; in which case the rule obtains, *locum facti impræstabilis subit damnum et interesse.*

30. An obligation, to which a condition is objected, either naturally or morally impossible, is in the general case null; for the parties are presumed not to have been serious. But such obligation is valid, and the condition thereof held *pro non scripta*, (1.) In testaments: (2.) In obligations, to the performance of which the granter lies under a natural tie, as in bonds of provision to a child. Where an obligation is granted under a condition, lawful but unfavourable, e. g. that the creditor shall not marry without the consent of certain friends, no more weight is given to the condition than the judge thinks reasonable. A condition, which is in some degree in the power of the creditor himself, is held as fulfilled, if he has done all he could to fulfil it. Implement or performance cannot be demanded in a mutual contract, by that party who himself declines or cannot fulfil the counterpart.

Donation.

31. *Donation*, so long as the subject is not delivered to the donee, may be justly ranked among obligations; and it is that obligation which arises from the mere good will and liberality of the granter. Donations imply no warrandice, but from the future facts of the donor. They are hardly revocable by our law for ingratitude, though it should be of the grossest kind: those betwixt man and wife are revocable by the

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the donor, even after the death of the donee; but remuneratory grants, not being truly donations, cannot be so revoked. That special sort of donation, which is constituted verbally, is called a *promise*. The Roman law entitled all donors to the *beneficium competentiæ*, in virtue of which they might retain such part of the donation as was necessary for their own subsistence. Our law affords this benefit to fathers, with respect to the provisions granted to their children; and to grandfathers, which is a natural consequence of children's obligation to aliment their indigent parents; but to no collateral relation, not even to brothers.

32. Donations made in contemplation of death, or *mortis causa*, are of the nature of legacies, and like them revocable: consequently, not being effectual in the granter's life, they cannot compete with any of his creditors; not even with those whose debts were contracted after the donation. They are understood to be given from a personal regard to the donee, and therefore fall by his predecease. No deed, after delivery, is to be presumed a *donatio mortis causa*; for revocation is excluded by delivery.

33. Deeds are not presumed, *in dubio*, to be donations. Hence, a deed by a debtor to his creditor, if donation be not expressed, is presumed to be granted in security or satisfaction of the debt; but bonds of provision to children are, from the presumption of paternal affection, construed to be intended as an additional patrimony; yet a tocher, given to a daughter in her marriage contract, is presumed to be in satisfaction of all former bonds and debts; because marriage contracts usually contain the whole provisions in favour of the bride. One who aliments a person that is come of age, without an express paction for board, is presumed to have entertained him as a friend, unless in the case of those who earn their living by the entertainment or board of strangers. But alimony given to minors, who cannot bargain for themselves, is not accounted a donation; except either where it is presumed from the near relation of the person alimenting, that it was given *ex pietate*; or where the minor had a father or curators, with whom a bargain might have been made.

Sect. XVI. *Of the Dissolution or Extinction of Obligations.*

clxxvi. Extinction of obligations as, performance.

1. Obligations may be dissolved by *performance*, or *implement*, *consent*, *compensation*, *novation*, and *confusion*. (1.) By *specifical performance*: thus, an obligation for a sum of money is extinguished by payment. The creditor is not obliged to accept of payment by parts, unless where the sum is payable by different divisions. If a debtor in two or more separate bonds to the same creditor, made an indefinite payment, without ascribing it at the time to any one of the obligations, the payment is applied, 1st, To interest, or to sums not bearing interest. 2dly, To the sums that are least secured, if the debtor thereby incurs no rigorous penalty. But, 3dly, If this application be penal on the debtor, e. g. by suffering the legal of an adjudication to expire, the payment will be applied so as to save the debtor from that forfeiture. Where one of the debts is secured by a cautioner, the other not, the application is to be so made, *cæteris paribus*, that both creditor and cautioner may have equal justice done to them. Law of Scotland.

2. Payment made by the debtor upon a mistake in fact, to one whom he believed, upon probable grounds, to have the right of receiving payment, extinguishes the obligation. But payment made to one, to whom the law denies the power of receiving it, has not this effect; as if a debtor, seized by letters of caption, should make payment to the messenger; for *ignorantia juris neminem excusat*. In all debts, the debtor, if he be not interpelled, may safely pay before the term, except in tack duties or feu duties; the payment whereof, before the terms at which they are made payable, is construed to be collusive, in a question with a creditor of the landlord or superior. Payment is *in dubio* presumed, by the voucher of the debt being in the hands of the debtor; *chirographum, apud debitorem repertum, præsumitur solutum*.

By consent.

3. Obligations are extinguishable by the *consent of the creditor*, who, without full implement, or even any implement, may renounce the right constituted in his own favour. Though a discharge or acquittance granted by one whom the debtor *bona fide* took for the creditor, but who was not, extinguishes the obligation, if the satisfaction made by the debtor was real; yet where it is imaginary, the discharge will not screen him from paying to the true creditor the debt for which he had made no prior satisfaction. In all debts which are constituted by writing, the extinction, whether it be by specifical performance or bare consent, must be proved, either by the oath of the creditor, or by a discharge in writing; and the same solemnities which law requires in the obligation, are necessary in the discharge: but, where payment is made, not by the debtor himself, but by the creditor's intromission with the rents of the debtor's estate, or by delivery to him of goods in name of the debtor, such delivery or intromission, being *facti*, may be proved by witnesses, though the debt should have been not only constituted by writing, but made real on the debtor's lands by adjudication.

4. A discharge, though it should be general, of all that the granter can demand, extends not to debts of an uncommon kind, which are not presumed to have been under the granter's eye. This doctrine applies also to general assignations. In annual payments, as of rents, feu-duties, interest, &c. three consecutive discharges by the creditor, of the yearly or termly duties, presume the payment of all precedings. Two discharges by the ancestor, and the third by the heir, do not infer this presumption, if the heir was ignorant of the ancestor's discharges. And discharges by an administrator, as a factor, tutor, &c. presume only the payment of all preceding duties incurred during his administration. This presumption arises from repeating the discharges thrice successively; and so does not hold in the case of two discharges, though they should include the duties of three or more terms.

By compensation.

5. Where the same person is both creditor and debtor to another, the mutual obligations, if they are for equal sums, are extinguished by *compensation*; if for unequal, still the lesser obligation is extinguished, and the greater diminished, as far as the concourse of debit and credit goes. To found compensation,

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tion, (1.) Each of the parties must be debtor and creditor at the same time. (2.) Each of them must be debtor and creditor in his own right. (3.) The mutual debts must be of the same quality: hence, a sum of money cannot be compensated with a quantity of corns; because, till the prices are fixed, at which the corns are to be converted into money, the two debts are incommensurable. Lastly, Compensation cannot be admitted, where the mutual debts are not clearly ascertained, either by a written obligation, the sentence of a judge, or the oath of the party. Where this requires but a short discussion, sentence for the pursuer is delayed for some time, *ex æquitate*, that the defender may make good his ground of compensation. Where a debt for fungibles is ascertained in money by the sentence of a judge, the compensation can have no effect farther back than the liquidation; because, before sentence, the debts were incommensurable: but, where a debt for a sum of money is, in the course of a suit, constituted by the oath of the debtor, the compensation, after it is admitted by the judge, operates *retro*, in so far as concerns the currency of interest, to the time when, by the parties acknowledgment, the debt became due: for, in this case, the debtor's oath is not what creates the debt, or makes it liquid: it only declares that such a liquid sum was truly due before. Compensation cannot be offered after decree, either by way of suspension or reduction; unless it has been formerly pleaded, and unjustly repelled. Decrees in absence are excepted.

By retention.

6. The right of *retention*, which bears a near resemblance to compensation, is chiefly competent, where the mutual debts, not being liquid, cannot be the ground of compensation; and it is sometimes admitted *ex æquitate* in liquid debts, where compensation is excluded by statute: thus, though compensation cannot be pleaded after decree, either against a creditor or his assignee; yet, if the original creditor should become bankrupt, the debtor, even after decree, may retain against the assignee, till he gives security for satisfying the debtor's claim against the cedent. This right is frequently founded in the expence disbursed on work employed on the subject retained, and so arises from the mutual obligations incumbent on the parties. It has never been disputed that retention of goods was competent, until payment or satisfaction of the debt incurred in relation to these goods; but it was found, by the court of session, in a case which was very lately before them, that goods could not be retained by a manufacturer until payment of a prior debt; the debt incurred upon the goods in his hands being offered; and although the debtor had become bankrupt, and the manufacturer must otherwise rank as a common creditor for his prior debt. But retention may be sustained, though the debt due to him who claims it does not arise from the nature of the obligation by which he is debtor: thus, a factor on a land estate may retain the sums levied by him in consequence of his factory, not only till he be paid of the disbursements made on occasion of such estate, but also till he be discharged from the separate engagements he may have entered into on his constituent's account.

By novation.

7. Obligations are dissolved by *novation*, whereby one obligation is changed into another, without changing either the debtor or creditor. The first obligation being thereby extinguished, the cautioners in it are loosed, and all its consequences discharged; so that the debtor remains bound only by the last. As the creditor to whom a right is once constituted, ought not to lose it by implication, novation is not easily presumed, and the new obligation is construed to be merely corroborative of the old; but, where the second obligation expressly bears to be *in satisfaction* of the first, these words must necessarily be explained into novation. Where the creditor accepts of a new debtor, in place of the former who is discharged, this method of extinction is called *delegation*.

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By delegation.

By confusion.

8. Obligations are extinguished *confusione*, where the debit and credit meet in the same person, either by succession or singular title, e. g. when the debtor succeeds to the creditor, or the creditor to the debtor, or a stranger to both; for one cannot be debtor to himself. If the succession, from which the *confusio* arises, happens afterwards to be divided, so as the debtor and creditor come again to be different persons; the *confusio* does not produce an extinction, but only a temporary suspension, of the debt.

Sect. XVII. *Of Assignations.*

cl. xvii. Assignations.

1. Heritable rights, when they are clothed with infeftment, are transmitted by disposition, which is a writing containing procuratory of resignation and precept of seisin; but those which either require no seisin, or on which seisin has not actually followed, are transmissible by simple *assignation*. He who grants the assignation is called the *cedent;* and he who receives it, the *assignee* or cessionary: if the assignee conveys his right to a third person, the deed of conveyance is called a *translation;* and if he assigns it back to the cedent, a *retrocession*. Certain rights are, from the uses to which they are destined, incapable of transmission, as alimentary rights: others cannot be assigned by the person invested in them, without special powers given to him; as tacks, reversions: the transmission of a third sort, is not presumed to be intended, without an express conveyance; as of paraphernal goods, which are so proper to the wife, that a general assignation, by her to her husband, of all that did or should belong to her at her decease, does not comprehend them. A liferent right is, by its nature, incapable of a proper transmission; but its profits may be assigned while it subsists.

Intimation of assignations.

2. Assignations must not only be delivered to the assignee, but intimated by him to the debtor. Intimations are considered as so necessary for completing the conveyance, that in a competition between two assignations, the last, if first intimated, is preferred.

What notification is equivalent to intimation.

3. Though, regularly, intimation to the debtor is made by an instrument, taken in the hands of a notary, by the assignee or his procurator; yet the law admits equipollencies, where the notice of the assignment given to the debtor is equally strong. Thus, a charge upon letters of horning at the assignee's instance, or a suit brought by him against the debtor, supplies the want of intimation; these being judicial acts, which expose the conveyance to the eyes both of the judge and of the debtor; or the debtor's promise of payment by writing to the assignee, because that is in effect a corroborating

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roborating of the original debt. The assignee's possession of the right, by entering into payment of the rents or interest, is also equal to an intimation; for it imports, not only notice to the debtor, but his actual compliance: but the debtor's private knowledge of the assignment is not sustained as intimation.

In what cases not necessary.

4. Certain conveyances need no intimation. (1.) Indorsations of bills of exchange; for these are not to be fettered with forms, introduced by the laws of particular states. (2.) Bank notes are fully conveyed by the bare delivery of them; for as they are payable to the bearer, their property must pass with their possession. (3.) Adjudication, which is a judicial conveyance, and marriage, which is a legal one, carry the full right of the subjects thereby conveyed, without intimation: nevertheless, as there is nothing in these conveyances which can of themselves put the debtor *in mala fide*, he is therefore *in tuto* to pay to the wife, or to the original creditor in the debt adjudged, till the marriage or adjudication be notified to him. Assignments of moveable subjects, though they be intimated, if they are made *retenta possessione*, (the cedent retaining the possession) cannot hurt the cedent's creditors; for such rights are presumed, in all questions with creditors, to be collusive, and granted in trust for the cedent himself.

Effects of assignation.

5. An assignation carries to the assignee the whole right of the subject conveyed, as it was in the cedent; and consequently he may use diligence either in his cedent's name while he is alive, or in his own.

6. After an assignation is intimated, the debtor cannot prove a payment or compensation, by the oath of the cedent, who has no longer any interest in the debt; unless the matter has been made litigious by an action commenced prior to the intimation: but the debtor may refer to the oath of the assignee, who is in the right of the debt, that the assignment was gratuitous, or in trust for the cedent: either of which being proved, the oath of the cedent will affect the assignee. If the assignation be in part onerous, and in part gratuitous, the cedent's oath is good against the assignee, only in so far as his right is gratuitous. All defences competent against the original creditor in a moveable debt, which can be proved otherwise than by his oath, continue relevant against even an onerous assignee; whose right can be no better than that of his author, and must therefore remain affected with all the burdens which attended it in the author's person.

Sect. XVIII. *Of Arrestments and Poindings.*

clxxviii. Arrestment.

1. The diligences whereby a creditor may affect his debtor's moveable subjects, are *arrestment* and *poinding*. By *arrestment* is sometimes meant the securing of a criminal's person till trial; but as it is understood in the rubric of this title, it is the order of a judge, by which he who is debtor in a moveable obligation to the arrester's debtor, is prohibited to make payment or delivery till the debt due to the arrester be paid or secured. The arrester's debtor is usually called the common debtor; because, where there are two or more competing creditors, he is debtor to all of them. The person in whose hands the diligence is used is styled the arrestee.

2. Arrestment may be laid on by the authority either of the supreme court, or of an inferior judge. In the first case, it proceeds either upon special letters of arrestment, or on a warrant containing letters of horning: and it must be executed by a messenger. The warrants granted by inferior judges are called precepts of arrestment, and they are executed by the officer proper to the court. Where the debtor to the common debtor is a pupil, arrestment is properly used in the hands of the tutor, as the pupil's administrator: this doctrine may perhaps extend to other general administrators, as commissioner, &c. But arrestment used in the hands of a factor or steward, cannot found an action of forthcoming without calling the constituent. Where the debtor to the common debtor is a corporation, arrestment must be used in the hands of the directors or treasurer, who represent the whole body. Arrestment, when it is used in the hands of the debtor himself, is inept; for that diligence is intended only as a restraint upon third parties.

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3. All debts in which one is personally bound, though they should be heritably secured, are grounds upon which the creditor may arrest the moveable estate belonging to his debtor. Arrestments may proceed on a debt, the term of payment whereof is not yet come, in case the debtor be *vergens ad inopiam*. If a debt be not yet constituted by decree or registration, the creditor may arise and execute a summons against his debtor for payment, on which pending action arrestment may be used, in the same manner as inhibition, which is called *arrestment upon a dependence*. If one's ground of credit be for the performance of a fact, or if his depending process be merely declaratory, without a conclusion of payment or delivery, such claims are not admitted to be sufficient grounds for arrestment.

What debts arrestable.

4. Moveable debts are the proper subject of arrestment; under which are comprehended conditional debts, and even depending claims. For lessening the expence of diligence to creditors, all bonds which have not been made properly heritable by seisin are declared arrestable: but this does not extend to adjudications, wadsets, or other personal rights of lands, which are not properly debts. Certain moveable debts are not arrestable. (1.) Debts due by bill, which pass from hand to hand as bags of money. (2.) Future debts; for though inhibition extends to *adquirenda* as well as *adquisita*, yet arrestment is limited, by its warrant, to the debt due at the time of serving it against the arrestee. Hence, an arrestment of rents or interest carries only those that have already either fallen due or at least become current. Claims, depending on the issue of a suit, are not considered as future debts; for the sentence, when pronounced, has a retrospect to the period at which the claim was first founded. The like doctrine holds in conditional debts. (3.) Alimentary debts are not arrestable; for these are granted on personal considerations, and so are not communicable to creditors: but the past interest due upon such debt may be arrested by the person who has furnished the alimony. One cannot secure his own effects to himself for his maintenance, so as they shall not be affectable by his creditors. Salaries annexed to offices granted by the king, and particularly those granted to the judges of the session, and the fees of servants, are considered as alimentary funds; but the surplus fee, over

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and above what is necessary for the servant's personal uses, may be arrested. It has also been found, that a wadset sum consigned after an order of redemption used, but before decreet of declarator, is not arrestable.

Effect of breach of arrestment.

5. If, in contempt of the arrestment, the arrestee shall make payment of the sum, or deliver the goods arrested, to the common debtor, he is not only liable criminally for breach of arrestment, but he must pay the debt again to the arrester. As the law formerly stood, an arrestment used at the market cross of Edinburgh, pier and shore of Leith, against a person furth of the kingdom, was good; so that if the arrestee made payment to his creditor after the date of the arrestment, he was found liable in second payment to the arrester, because he had done all in his power to notify his diligence. This, however, is very properly altered by § 3. of the act of the 23d Geo. III. which declares that an arrestment used at the market cross of Edinburgh, pier and shore of Leith, in the hands of any person out of the kingdom, without other sufficient notification, shall not interpel the arrestee from paying *bona fide* to the original creditor. Arrestment is not merely prohibitory, as inhibitions are; but is a step of diligence which founds the user in a subsequent action whereby the property of the subject arrested may be adjudged to him. It therefore does not, by our latter practice, fall by the death of the arrestee; but continues to subsist, as a foundation for an action of forthcoming against his heir, while the subject arrested remains *in medio*. Far less is arrestment lost, either by the death of the arrester, or of the common debtor.

Loosing of arrestment.

6. Where arrestment proceeds on a depending action, it may be loosed by the common debtor's giving security to the arrester for his debt in the event it shall be found due. Arrestment founded on decrees, or on registered obligations, which in the judgment of law are decrees, cannot be loosed but upon payment or consignation; except, (1.) Where the term of payment of the debt is not yet come, or the condition has not yet existed. (2.) Where the arrestment has proceeded on a registered contract, in which the debts or mutual obligations are not liquid. (3.) Where the decree is suspended, or turned into a libel: for, till the suspension be discussed, or the pending action concluded, it cannot be known whether any debt be truly due. A loosing takes off the *nexus* which had been laid on the subject arrested; so that the arrestee may thereafter pay safely to his creditor, and the cautioner is substituted in place of the arrestment, for the arrester's security: yet the arrester may, while the subject continues with the arrestee, pursue him in a forthcoming, notwithstanding the loosing.

Forthcoming on arrestment.

7. Arrestment is only an inchoated or begun diligence; to perfect it, there must be an action brought by the arrester against the arrestee, to make the debt or subject arrested forthcoming. In this action, the common debtor must be called for his interest, that he may have an opportunity of excepting to the lawfulness or extent of the debt on which the diligence proceeded. Before a forthcoming can be pursued, the debt due by the common debtor to the arrester must be liquidated; for the arrester can be no further entitled to the subject arrested than to the extent of the debt due to him by the common debtor. Where the subject arrested is a sum of money, it is, by the decree of forthcoming, directed to be paid to the pursuer towards satisfying his debt; where goods are arrested, the judge ordains them to be exposed to sale, and the price to be delivered to the pursuer. So that, in either case decrees of forthcoming are judicial assignations to the arrester of the subject arrested.

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Preference in arrestments.

8. In all competitions, regard is had to the dates, not of the grounds of debt, but of the diligences proceeding upon them. In the competition of arrestments, the preference is governed by their dates, according to the priority even of hours, where it appears with any certainty which is the first. But, as arrestment is but a begun diligence, therefore if a prior arrester shall neglect to insist in an action of forthcoming for such a time as may be reasonably construed into a desertion of his begun diligence, he loses his preference. But, as dereliction of diligence is not easily presumed, the distance of above two years, between the first arrestment and the decree of forthcoming, was found not to make such a *mora* as to entitle the posterior arrester to a preference. This rule of preference, according to the dates of the several arrestments, holds by our present practice, whether they have proceeded on a decree or on a dependence; on debts not yet payable, or on debts already payable; provided the pendency shall have been closed, or the debt have become payable, before the issue of the competition.

By act 23d Geo. III. § 2. it is enacted, that when a debtor is made bankrupt, in terms of the act 1696, as thereby extended (clxxxiii. 13.), all arrestments which shall have been used for attaching any personal effects of such bankrupt within thirty days prior to the bankruptcy, or within four kalender months immediately subsequent, shall be *pari passu* preferable: and in order to save as far as possible the expence of a multiplicity of arrestments, it is declared, that where the effects of a debtor are arrested by any creditor within thirty days before the bankruptcy, or within four months after it, and a process of forthcoming or multiplepoinding is brought in which such arrestment is founded on, it shall be competent for any other creditor producing his interest, and making his claim in the said process, at any time before the expiration of the said four months, to be ranked in the same manner as if he had used the form of arrestment; the expence of raising the process, and of the diligence at the instance of the creditor who raises it, being always paid out of the common fund. We here again repeat, that the enactments of this statute are only temporary, and not yet a permanent part of the law of Scotland, whatever they may become when the subject is resumed by the legislature upon the expiry of the act.

9. In the competition of arrestments with assignations, an assignation by the common debtor, intimated before arrestment, is preferable to the arrestment. If the assignation is granted before arrestment, but not intimated till after it, the arrester is preferred.

Poinding

10. POINDING is that diligence affecting moveable subjects, by which their property is carried directly to the creditor. No poinding can proceed, till a charge be given to the debtor to pay or perform, and the days thereof be expired, except poindings against vassals for their feu-duties, and poindings against tenants for rent, proceeding upon the landlord's own decree; in which the

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the ancient custom of poinding without a previous charge continues. A debtor's goods may be poinded by one creditor, though they have been arrested before by another; for arrestment being but an imperfect diligence, leaves the right of the subject still in the debtor, and so cannot hinder any creditor from using a more perfect diligence, which has the effect of carrying the property directly to himself.

11. No cattle pertaining to the plough, nor instruments of tillage can be poinded in the time of labouring or tilling the ground, unless where the debtor has no other goods. By labouring time is understood, that time, in which that tenant, whose goods are to be poinded, is ploughing, though he should have been earlier or later than his neighbours; but summer fallowing does not fall under this rule.

Form thereof.

12. In the exection of poinding, the debtor's goods must be appraised, first, on the ground of the lands where they are laid hold on, and a second time at the market cross of the jurisdiction, by the stated appraisers thereof; or, if there be none, by persons named by the messenger or other officer employed in the diligence. Next, the messenger must, after public intimation by three oyesses, declare the value of the goods according to the second appraisement, and require the debtor to make payment of the debt, including interest and expences. If payment shall be offered to the creditor, or in his absence to his lawful attorney; or if, in case of refusal by them, consignation of the debt shall be made in the hands of the judge ordinary or his clerk, the goods must be left with the debtor; if not, the messenger ought to adjudge and deliver them over, at the appraised value, to the user of the diligence towards his payment: and the debtor is entitled to a copy of the warrant and executions, as a voucher that the debt is discharged in whole or in part by the goods poinded.

13. Ministers may poind for their stipends, upon one appraisement on the ground of the lands, and landlords were always in use to poind so, for their rents. Appraisement of the goods at the market cross of the next royal borough, or even of the next head borough of stewartry or regality, though these jurisdictions be abolished, is declared as sufficient as if they were carried to the head borough of the shire. Poinding, whether it be considered as a sentence, or as the execution of a sentence, must be proceeded in between sun-rising and sun-setting; or at least it must be finished before the going off of day-light.—The powers of the officer employed in the execution of poindings are not clearly defined by custom, in the case of a third party claiming the property of the goods to be poinded. This is certain, that he may take the oath of the claimant upon the verity of his claim; and if from thence it shall appear that the claimant's title is collusive, he ought to proceed in the diligence; but if there remains the least doubt, his safest course is to deliver the goods to the claimant, and to express in his execution the reasons why poinding did not proceed.

Powers of messengers in poinding.

14. Any person who stops a poinding *via facti*, on groundless pretences, is liable, both criminally, in the pains of deforcement (see N° clxxxvi. 15.), and civilly, in the value of the goods which might have been poinded by the creditor.

By the foresaid statute 23. Geo. III. § 4. it is declared, that after a person is rendered bankrupt, as thereby directed, no poinding of the moveables belonging to such bankrupt, within 30 days before his bankruptcy, or within four kalendar months thereafter, shall give a preference to such poinder over the other lawful creditors of the bankrupt; but the goods so poinded shall be considered as *in medio*, and the person receiving the price of them shall be liable to make the same forthcoming, so as that all the other creditors of the bankrupt who are possessed of liquidate grounds of debt or decrees for payment, shall be entitled to their proportion of the same; provided they make their claim by summoning the poinder at any time before the expiration of the said four months, deducting always the expence of such poinding from the first end of the price of such goods, together with 20 per cent. on the appraised value, which the poinder shall retain to account of his debt in preference to the other creditors; reserving liberty to him to rank on the remaining sum for the full amount of the debt contained in his diligence. And it is by the said act further declared, that where any person concerned in trade or manufactures is bankrupt, as before mentioned, it may be lawful for any creditor, to the amount of 100l. any two creditors to the amount of 150l. or any three or more creditors to the amount of 200l. or upwards, to apply for sequestration of the estate real or personal belonging to the debtor; after awarding which, an interim factor, and then a trustee, shall be chosen by the creditors, who is to conduct the business of the sequestration, according to the various rules fixed and laid down by the statute. The act, however, expressly excludes all others, except those concerned in trade or manufacture, from the benefit of the sequestration; but it is probable, when it comes to be renewed or digested in another form, this part of it will suffer an alteration.

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Sect. XIX. *Of Prescription.* clxxix.

Prescription.

1. Prescription, which is a method, both of establishing and of extinguishing property, is either *positive* or *negative*. *Positive* prescription is generally defined, as the Roman *usucapio*, The acquisition of property (it should rather be, when applied to our law, the securing it against all further challenge) by the possessor's continuing his possession for the time which law has declared sufficient for that purpose: *negative*, is the loss or amission of a right, by neglecting to follow it forth, or use it, during the whole time limited by law. The doctrine of prescription, which is, by some writers, condemned as contrary to justice, has been introduced, that the claims of negligent creditors might not subsist forever, that property might be at last fixed, and forgeries discouraged, which the difficulty of detecting must have made exceeding frequent, if no length of time had limited the legal effect of writings.

Positive.

2. Positive prescription was first introduced into our law by 1617, c. 12. which enacts, that whoever shall have possessed his lands, annualrents, or other heritages, peaceably in virtue of infeftments, for 40 years continually after their dates, shall not thereafter be disquieted in his right by any person pretending a better title. Under *heritages* are comprehended every right that is *fundo annexum*, and capable of continual possession.

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sion. Continued possession, if proved as far back as the memory of man, presumes possession upwards to the date of the infeftment. The whole course of possession must by the act be founded on seisins; and consequently no part thereof on the bare right of apparency: but 40 years possession, without seisin, is sufficient in the prescription of such heritable rights as do not require seisin. The possession must also be without any *lawful* interruption, i. e. it must neither be interrupted *via facti*, nor *via juris*. The prescription of subjects not expressed in the infeftment as part and pertinent of another subject specially expressed, has been explained N° clxvii. 6.

3. The act requires, that the possessor produce, as his title of prescription, a charter of the lands, preceding the 40 years possession, with the seisin following on it: and where there is no charter extant, seisins, one or more, standing together for 40 years, and proceeding either on retours or precepts of *clarè constat*. This has given rise to a reasonable distinction, observed in practice, between the prescription of a singular successor, and of an heir. Singular successors must produce for their title of prescription, not only a seisin, but its warrant, as a charter, disposition, &c. either in their own person, or in that of their author: but the production, by an heir, of seisins, one or more, standing together for 40 years, and proceeding on retours or precepts of *clarè constat*, is sufficient. The heir is not obliged to produce the retours or precepts on which his seisins proceed, nor is the singular successor obliged to produce the ground of his charter: so that if the title of prescription produced be a fair deed, and a sufficient title of property, the possessor is secure by the act, which admits no ground of challenge, but falsehood. A special statute, for establishing the positive prescription in moveable rights, was not necessary: for since a title in writing is not requisite for the acquiring of these, the negative prescription, by which all right of action for recovering their property is cut off, effectually secures the possessor.

Negative prescription.

4. The negative prescription of obligations, by the lapse of 40 years, was introduced into our law long before the positive, (1469, c. 29.—1474, c. 55.). This prescription is now amplified by the foresaid act (1617), which has extended it to all actions competent upon heritable bonds, reversions, and others whatsoever; unless where the reversions are either incorporated in the body of the wadset-right, or registered in the register of reversions: And reversions so incorporated, or registered, are not only exempted from the negative prescription, but they are an effectual bar against any person from pleading the positive.

A shorter negative prescription.

5. A shorter negative prescription is introduced by statute, in certain rights and debts. Actions of spuilzie, ejection, *and others of that nature*, must be pursued within three years after the commission of the fact on which the action is founded. As in spuilzies and ejections, the pursuer was entitled, *in odium* of violence, to a proof by his own oath *in litem*, and to the violent profits against the defender, the statute meant only to limit these special privileges by a three years prescription, without cutting off the right of action, where the claim is restricted to simple restitution. Under the general words, *and others of that natnre*, are comprehended all actions where the pursuer is admitted to prove his libel by his own oath *in litem*.

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Prescription of servants fees, &c.

6. Servant's fees, house rents, men's ordinaries, (i. e. money due for board), and merchants accounts, fall under the triennial prescription, (by 1579, c. 83.). There is also a general clause subjoined to this statute, of *other the like debts*, which includes alimentary debts, wages due to workmen, and accounts due to writers, agents, or procurators. These debts, may, by this act, be proved after the three years, either by the writing or oath of the debtor; so that they prescribe only as to the mean of proof by witnesses: but after the three years it behoves the creditor to refer to the debtor's oath, not only the constitution, but the subsistence of the debt. In the prescription of house rents, servants fees, and alimony, each term's rent, fee, or alimony, runs a separate course of prescription; so that in an action for these the claim will be restricted to the arrears incurred within the three years immediately before the citation: But, in accounts, prescription does not begin till the last article; for a single article cannot be called an account. Actions of removing must also be pursued within three years after the warning. Reductions of erroneous retours prescribe, if not pursued within 20 years.

Of ministers stipends, &c.

7. Ministers stipends and multures prescribe in five years after they are due; and arrears of rent, five years after the tenant's removing from the lands. As the prescription of mails and duties was introduced in favour of poor tenants, that they might not suffer by neglecting to preserve their discharges, a proprietor of lands subject to a liferent, who had obtained a lease of all the liferented lands from the liferenter is not entitled to plead it, nor a tacksman of one's whole estate, who had by the lease a power of removing tenants. Bargains concerning moveables, or sums of money which are proveable by witnesses, prescribe in five years after the bargain. Under these are included sales, locations, and all other consensual contracts, to the constitution of which writing is not necessary. But all the above-mentioned debts, may, after the five years, be proved, either by the oath or the writing of the debtor; of which above, (par. 6.). A quinquennial prescription is established in arrestment whether on decrees or depending actions: The first prescribe in five years after using the arrestments, and the last in five years after sentence is pronounced on the depending action.

Limitation of cautionary

8. No person binding for or with another, either as cautioner or co-principal, in a bond or contract for a sum of money, continues bound after seven years from the date of the bond, provided he has either a clause of relief in the bond, or a separate bond of relief, intimated to the creditor, at his receiving the bond. But all diligence used within the seven years against the cautioner shall stand good. As this is a public law, intended to prevent the bad consequences of rash engagements, its benefit cannot, before the lapse of the seven years, be renounced by the cautioner: As it is correctory, it is strictly interpreted: Thus, bonds bearing a mutual clause of relief *pro rata*, fall not under it; nor bonds of corroboration, nor obligations, where the condition is not purified, or the term of payment not come within the seven years; because no diligence

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ligence can be used on these. The statute excludes all cautionries for the faithful discharge of offices; these not being obligations in a bond or contract for sums of money. And practice has denied the benefit of it to all judicial cautioners, as cautioners in a suspension.—Actions of count and reckoning, competent either to minors against their tutors or curators, or *vice versa*, prescribe in ten years after the majority or death of the minor.

Prescription of holograph writings.

9. Holograph bonds, missive letters, and books of account, not attested by witnesses, prescribe in 20 years, unless the creditor shall thereafter prove the verity of the subscription by the debtor's oath. It is therefore sufficient to save from the effect of this prescription, that the constitution of the debt be proved by the party's oath after the 20 years; whereas, in stipends, merchants accounts, &c. not only the constitution, but the subsistence of the debt, must be proved by writing or the debtor's oath, after the term of prescription. Some lawyers extend this prescription of holograph writings to all obligations for sums not exceeding 100l. Scots, which are not attested by witnesses; because though these are in practice sustained, yet they ought not to have the same duration with deeds attested by witnesses. Though in the short prescriptions of debts, the right of action is for ever lost, if not exercised within the time limited: yet where action was brought on any of those debts, before the prescription was run, it subsisted, like any other right, for 40 years. As this defeated the purposes of the acts establishing these prescriptions, all processes upon warnings, spuilzies, ejections, or arrestments, or for payment of the debts contained in act 1669, c. 9. are by the said act joined with 1685, c. 14. declared to prescribe in five years, if not wakened within that time; see N° clxxxiii. 26.

Extinction of obligations by taciturnity.

10. Certain obligations are lost by the lapse of less than 40 years, without the aid of statute, where the nature of the obligation, and the circumstances of parties justify it: thus, bills which are not intended for lasting securities, produced no action where the creditor had been long silent, unless the subsistence of the debt be proved by the debtor's oath; but the precise time was not fixed by practice. But the duration of bills is now limited to six years by the 12 Geo. III.; rendered perpetual by 23 Geo. III. Thus, also, a receipt for bills granted by a writer to his employer, not insisted upon for 23 years, was found not productive of an action. The prescriptions of the restitution of minors, of the benefit of inventory, &c. are explained in their proper places.

Bona fides prescription.

11. In the positive prescription, as established by the act 1617, the continued possession for 40 years, proceeding upon a title of property not chargeable with falsehood, secures the possessor against all other grounds of challenge, and so presumes *bona fides*, *præsumptione juris et de jure*. In the long negative prescription, *bona fides* in the debtor is not required: the creditor's neglecting to insist for so long a time, is construed as an abandoning of his debt, and so is equivalent to a discharge. Hence, though the subsistence of the debt should be referred to the debtor's own oath, after the 40 years he is not liable.

12. Prescription runs *de momento in momentum*: the whole time defined by law must be completed, before a right can be either acquired or lost by it; so that interruption, made on the last day of the 40th year, breaks its course. The positive prescription runs against the sovereign himself, even as to his annexed property; but it is generally thought he cannot suffer by the negative: he is secured against the negligence of his officers in the management of his processes, by express statute, 1600, c. 14. The negative, as well as the positive prescription, runs against the church, though churchmen have but a temporary interest in their benefices. But because the rights of beneficiaries to their stipends are liable to accidents, through the frequent change of incumbents, 13 years possession does, by a rule of the Roman chancery which we have adopted, found a presumptive title in the beneficiary: but this is not properly prescription; for if by titles recovered, perhaps out of the incumbent's own hands, it shall appear that he has possessed tithes or other subjects to a greater extent than he ought, his possession will be restricted accordingly. This right must not be confounded with that established in favour of churchmen, which is confined to church lands and rents, and constitutes a proper prescription upon a possession of 30 years.

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Prescription, against whom it runs.

13. The clause in the act 1617, saving minors from prescription, is extended to the positive, as well as to the negative prescription; but the exception of minority is not admitted in the case of hospitals for children, where there is a continual succession of minors, that being a *casus insolitus*. Minors are expressly excepted in several of the short prescriptions, as 1579, c. 18.——1669, c. 9.; but where law leaves them in the common case, they must be subject to the common rules.

14. Prescription does not run *contra non valentem agere*, against one who is barred by some legal incapacity, from pursuing; for in such case, neither negligence nor dereliction can be imputed to him. This rule is, by a favourable interpretation, extended to wives, who *ex reverentia maritali* forbear to pursue actions competent to them against their husbands. On the same ground, prescription runs only from the time that the debt or right could be sued upon. Thus, inhibition prescribes only from the publishing of the deed granted to the inhibiter's prejudice; and in the prescription of removings, the years are computed only from the term at which the defender is warned to remove. Neither can prescription run against persons who are already in possession, and so can gain nothing by a pursuit. Thus, where a person who has two adjudications affecting the same lands, is in possession upon one of them, prescription cannot run against the other during such possession.

Certain rights incapable of prescription.

15. Certain rights are incapable of prescription: (1.) Things that law has exempted from commerce. (2.) *Res meræ facultatis*, e. g. a faculty to charge a subject with debts, to revoke, &c. cannot be lost by prescription; for faculties may, by their nature, be exercised at any time: hence, a proprietor's right of using any act of property on his own grounds cannot be lost by the greatest length of time. (3.) Exceptions competent to a person for eliding an action, cannot prescribe, unless the exception is founded on a right productive of an action, e. g. compensation; such right must be insisted on within the years of prescription.

(4.)

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(4.) Obligations of yearly pensions or payments, though no demand has been made on them for 40 years, do not suffer a total prescription, but still subsist as to the arrears fallen due within that period; because prescription cannot run against an obligation till it be payable, and each year's pension or payment is considered as a separate debt.

16. No right can be lost *non utendo* by one, unless the effect of that prescription be to establish it in another. Hence the rule arises, *juri sanguinis nunquam præscribitur*. Hence also, a proprietor of land cannot lose his property by the negative prescription, unless he who objects it can himself plead the positive. On the same ground, a superior's right of feu duties cannot be lost *non utendo;* because being inherent in the superiority, it is truly a right of lands that cannot suffer the negative prescription, except in favour of one who can plead the positive; which the vassal cannot do, being destitute of a title. This rule applies also to parsonage tithes, which are an inherent burden upon all lands not specially exempt; and from which therefore the person liable cannot prescribe an immunity by bare non-payment: but such vicarage tithes as are only due where they are established by usage, may be lost by prescription. In all these cases, though the radical right cannot suffer the negative prescription, the bygone duties, not demanded within the 40 years, are lost to the proprietor, superior, or titular.

Interruption of prescription.

17. Prescription may be interrupted by any deed whereby the proprietor or creditor uses his right or ground of debt. In all interruptions, notice must be given to the possessor of the subject, or the debtor, that the proprietor or creditor intends to sue upon his right. All writings whereby the debtor himself acknowledges the debt, and all processes for payment brought, or diligences used against him upon his obligation, by horning, inhibition, arrestment, &c. must be effectual to interrupt prescription.

18. Interruptions by citation upon libelled summonses, where they are not used by a minor, prescribe, if not renewed every seven years; but where the appearance of parties, or any judicial act has followed thereupon, it is no longer a bare citation, but an action which subsists fnr 40 years. It has been found, that the sexennial prescription of bills is not interrupted by a blank citation, as practised in the court of admiralty. Citations for interrupting the prescription of real rights must be given by messengers; and the summonses, on which such citations proceed, must pass the signet upon the bill, and be registered within 60 days after the execution, in a particular register appointed for that purpose: and where interruption of real rights is made *via facti*, an instrument must be taken upon it, and recorded in the said register; otherwise it can have no effect against singular successors.

19. Interruption has the effect to cut off the course of prescription, so that the person prescribing can avail himself of no part of the former time, but must begin a new course, commencing from the date of the interruption. Minority, therefore, is no proper interruption: for it neither breaks the course of prescription, nor is it a document or evidence taken by the minor on his right: it is a personal privilege competent to him, by which the operation of the prescription is indeed suspended during the years of minority, which are therefore discounted from it; but it continues to run after majority, and the years before and after the minority may be conjoined to complete it. The same doctrine applies to the privilege arising from one's incapacity to act. Law of Scotland.

20. Diligence used upon a debt, against any one of two or more co-obligants, preserves the debt itself, and so interrupts prescriptiou against all of them; except in the special case of cautioners, who are not affected by any diligence used against the principal debtor. In the same manner, a right of annualrent, constituted upon two separate tenements, is preserved as to both from the negative prescription, by diligence used against either of them. But whether such diligence has also the effect to hinder the possessor of the other tenement by singular titles from the benefit of the positive prescription, may be doubted.

III. Of SUCCESSION.

Sect. XX. *Of Succession in Heritable Rights.* clxxx.

Successors singular and universal.

1. Singular successors are those who succeed to a person yet alive, in a special subject by singular titles; but succession, in its proper sense, is a method of transmitting rights from the dead to the living. Heritable rights descend by succession to the *heir* properly so called; moveable rights to the *executors*, who are sometimes said to be heirs in moveables. Succession is either by *special destination*, which descends to those named by the proprietor himself; or *legal*, which devolves upon the persons whom the law marks out for successors, from a presumption that the proprietor would have named them had he made a destination. The first is in all cases preferred to the other, as presumption must yield to truth.

Order of succession in heritage.

2. In the succession of heritage, the heirs at law are otherwise called heirs general, heirs whatsoever, or heirs of line; and they succeed by the right of blood, in the following order. First, Descendants; among these, sons are preferred to daughters, and the eldest son to all the younger. Where there are daughters only, they succeed equally, and are called heirs portioners. Failing immediate descendants, grandchildren succeed; and in default of them, great-grandchildren; and so on *in infinitum;* preferring, as in the former case, males to females, and the eldest male to the younger.

Collaterals.

3. Next after descendants, collaterals succeed; among whom the brothers *german* of the deceased have the first place. But as, in no case, the legal succession of heritage is, by the law of Scotland, divided into parts, unless where it descends to females; the immediate younger brother of the deceased excludes the rest, according to the rule, *heritage descends*. Where the deceased is himself the youngest, the succession goes to the immediate elder brother, as being the least deviation from this rule. If there are no brothers german, the sisters german succeed equally: then brothers *consanguincan*, in the same order as brothers german; and failing them, sisters *consanguinean* equally. Next the father succeeds. After him, his brothers and sisters, according to the rules already explained; then the grandfather; failing him, his brothers and sisters; and

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No succession by the mother.

so upwards, as far back as propinquity can be proved. Though children succeed to their mother, a mother cannot to her child; nor is there any succession by our law through the mother of the deceased; insomuch that one brother *uterine*, i. e. by the mother only, cannot succeed to another, even in that estate which flowed originally from their common mother.

Succession *in capita* and *in stirpe*.

4. In heritage there is a *right of representation*, by which one succeeds, not from any title in himself, but in the place, and as representing some of his deceased ascendants. Thus, where one leaves a younger son, and a grandchild by his eldest, the grandchild, though farther removed in degree from the deceased than his uncle, excludes him, as coming in place of his father the eldest son. Hence arises the distinction between succession *in capita*, where the division is made into as many equal parts as there are *capita* or heirs, which is the case of heirs portioners; and succession *in stirpes*, where the remoter heirs draw no more among them than the share belonging to their ascendants or *stirps*, whom they represent; an example of which may be figured in the case of one who leaves behind him a daughter alive, and two grand-daughters by a daughter deceased. In which case the two grand-daughters would succeed equally to that half which would have belonged to their mother had she been alive.

Succession of heirs portioners.

5. In the succession of heirs portioners, indivisible rights, *e. g.* titles of dignity, fall to the eldest sister. A single right of superiority goes also to the eldest; for it hardly admits a division, and the condition of the vassal ought not to be made worse by multiplying superiors upon him. Where there are more such rights, the eldest may perhaps have her election uf the best; but the younger sisters are entitled to a recompense, in so far as the divisions are unequal; at least, where the superiorities yield a constant yearly rent. The principal seat of the family falls to the eldest, with the garden and orchard belonging to it, without recompense to the younger sisters; but all other houses are divided amongst them, together with the lands on which they are built, as parts and pertinents of these lands. A *præcipuum*, however, is due only in the case of succession of heirs portioners *ab intestato;* and therefore there is no place for it where the succession is taken under a deed.

Heir of conquest.

6. Those heritable rights, to which the deceased did himself succeed as heir to his father or other ancestor, get sometimes the name of heritage in a strict sense, in opposition to the *feuda nova*, or feus of conquest, which he had acquired by singular titles, and which descend not to his heir of line, but of conquest. This distinction obtains only where two or more brothers or uncles, or their issue, are next in succession; in which case, the immediate younger brother, as heir of line, succeeds to the proper heritage, because that descends; whereas the conquest ascends to the immediate elder brother. It has no place in female succession, which the law divides equally among the heirs portioners. Where the deceased was the younger brother, the immediate elder brother is heir both of line and of conquest. An estate disponed by a father to his eldest son, is not conquest in the son's person, but heritage: because the son would have succeeded to it, though there had been no disposition. The heir of conquest succeeds to all rights affecting land, which require seisin to perfect them. But teinds go to the heir of line; because they are merely a burden on the fruits, not the land. Tacks do not fall under conquest, because they are complete rights without seisin: nor personal bonds taken to heirs secluding executors.

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Heirship-moveables.

7. The heir of line is entitled to the succession, not only of subjects properly heritable, but to that sort of moveables called *heirship*, which is the best of certain kinds. This doctrine has been probably introduced, that the heir might not have a house and estate to succeed to, quite dismantled by the executor. In that sort which goes by pairs or dozens, the best pair or dozen is the heirship. There is no heirship in fungibles, or things estimated by quantity; as grain, hay, current money, &c. To entitle an heir to this privilege, the deceased must have been either, (1.) A prelate: (2.) A baron, *i. e.* who stood infeft at his death in lands, though not erected into a barony; or even in a right of annual-rent: Or, (3.) A burgess; not an honorary one, but a trading burgess of a royal borough, or at least one entitled to enter burgess in the right of his ancestor. Neither the heir of conquest, nor of tailzie, has right to heirship moveables.

Succession by destination.

8. As to succession by destination, no proprietor can settle any heritable estate, in the proper form of a testament; not even bonds secluding executors, though these are not heritable *ex sua natura:* But, where a testament is in part drawn up in the style of a deed *inter vivos*, such part of it may contain a settlement of heritage, though executors should be named in the testamentary part. The common method of settling the succession of heritage is by disposition, contract of marriage, or simple procuratory of resignation: and, though a disposition settling heritage should have neither precept nor procuratory, it founds an action against the heir of line to complete his titles to the estate; and thereafter divest himself in favour of the disponee. The appellation of tailzie, or entail, is chiefly used in the case of a land estate, which is settled on a long series of heirs substituted one after another. The person first called in the tailzie, is the iustitute; the rest, the heirs of tailzie, or the substitutes.

Tailzies.

9. Tailzies, when considered in relation to their several degrees of force, are either, (1.) Simple destinations. (2.) Tailzies with prohibitory clauses. (3.) Tailzies with prohibitory, resolutive, and irritant clauses. That is a simple destination, where the persons called to the succession are substituted one after another, without any restraint laid on the exercise of their property. The heirs, therefore, succeeding to such estate, are absolute fiars, and consequently may alter the destination at pleasure.

10. In tailzies with clauses prohibitory, *e. g.* declaring that it shall not be lawful to the heirs to contract debts or alien the lands in prejudice of the succession, none of the heirs can alien gratuitously. But the members of entail may contract debts which will be effectual to the creditors, or may dispose of the estate for onerous causes. In both these sorts the maker himself may alter the tailzie: except, (1.) Where it has been granted for an onerous cause, as in mutual tailzies: or, (2.) Where the maker is expressly disabled, as well as the institute or the heirs.

11. Where a tailzie is guarded with irritant and resolutive clauses, the estate entailed cannot be carried off

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by the debt, or deed, of any of the heirs succeeding thereto, in prejudice of the substitutes. It was long doubted, whether such tailzies ought to be effectual, even where the superior's consent was adhibited; because they sunk the property of estates, and created a perpetuity of liferents. They were first explicitly authorized by 1685, c. 22. By this statute, the entail must be registered in a special register established for that purpose; and the irritant and resolutive clauses must be inserted, not only in the procuratories, precepts, and seisins, by which the tailzies are first constituted, but in all the after conveyances thereof; otherwise they can have no force against singular successors. But a tailzie, even without these requisites, is effectual against the heir of the granter, or against the institute who accepts of it. It has been found, that an entail, though completed by infeftment before the act 1685, was ineffectual, because not recorded in terms of the act.

Their requisites.

Heirs of entail, their powers and restrictions.

12. An heir of entail has full power over the entailed estate, except in so far as he is expressly fettered; and as entails are an unfavourable restraint upon property, and a frequent snare to trading people, they are *strictissimi juris*; so that no prohibition or irritancies are to be inferred by implication. By 10 Geo. III. c. 51. heirs of entail are entitled (notwithstanding any restriction in the deed of entail) to improve their estates by granting leases, building farm houses, draining, enclosing, and excambing, under certain limitations, and to claim repayment of three-fourths of the expence from the next heir of entail.—This act extends to all tailzies, whether made prior or posterior to the 1685.

Contravention, by whom inferred.

13. An heir, who counteracts the directions of the tailzie, by aliening any part of the estate, charging it with debt, &c. is said to contravene. It is not the simple contracting of debt that infers contravention; the lands entailed must be actually adjudged upon the debt contracted. An heir may, where he is not expressly barred, settle rational provisions on his wife and children, without incurring contravention. It is not quite clear whether the heirs also of the contravener would forfeit their right from the acts or deeds of their predecessor where there is no express clause in the entailed settling it; and though the words of the act 1685 (which declares, that entails executed according to the directions of it, shall be effectual not only against the contravener and his heirs, but against creditors), may seem to favour the idea that heirs also would forfeit, the more favourable opinion has received the sanction of our supreme court. For the greater security, however, a clause is now usually inserted in tailzies, declaring, that the contravention of the heir in possession shall not affect his descendants, when such is the intention of the granter.

In what cases an heir may sell.

14. When the heirs of the last person specially called in a tailzie come to succeed, the irritancies have no longer any person in favour of whom they can operate, and consequently, the fee, which was before tailzied, becomes simple and unlimited in the person of such heirs. By the late act 20th George II. for abolishing wardholdings, the king may purchase lands within Scotland, notwithstanding the strictest entail; and where the lands are in the hands of minors or fatuous persons, his majesty may purchase them from the curators or guardians. And heirs of entail may sell to their vassals the superiorities belonging to the entailed estate; but in all these cases, the price is to be settled in the same manner that the lands or superiorities sold were settled before the sale.

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15. Rights, not only of land estates, but of bonds, are sometimes granted to two or more persons in conjunct fee. Where a right is so granted to two strangers, without any special clause adjected to it, each of them has an equal interest in the fee, and the part of the deceased descends to his own heir. If the right be taken to the two jointly, and the *longest liver* and their heirs, the several shares of the conjunct fiars are affectable by their creditors during their lives; but, on the death of any one of them, the survivor has the fee of the whole, in so far as the share of the predeceased remains free, after payment of his debts. Where the right is taken to the two in conjunct fee, and to the heirs of one of them, he to whose heirs the right is taken is the only fiar; the right of the other resolves into a simple liferent: yet where a father takes a right to himself and his son jointly, and to the son's heirs, such right being gratuitous, is not understood to strip the father of the fee, unless a contrary intention shall plainly appear from the tenor of the right.

Rights taken in conjunct fee.

16. Where a right is taken to a husband and wife, in conjunct fee and liferent, the husband, as the *persona dignior*, is the only fiar: the wife's right resolves into a liferent, unless it be presumable, from special circumstances, that the fee was intended to be in the wife. Where a right of moveables is taken to husband and wife, the heirs of both succeed equally, according to the natural meaning of the words.

Heirs of provision.

17. Heirs of provision are those who succeed to any subject, in virtue of a provision in the investiture, or other deed of settlement. This appellation is given most commonly to heirs of a marriage. These are more favourably regarded than heirs by simple destination, who have only the hope of succession; for heirs of a marriage, because their provisions are constituted by an onerous contract, cannot be disappointed of them by any gratuitous deed of the father. Nevertheless, as their right is only a right of succession, which is not designed to restrain the father from granting onerous or rational deeds, he continues to have the full power of selling the subject, or charging it with debts, unless a proper right of credit be given to the heir by the marriage contract, e. g. if the father should oblige himself to infeft the heir in the lands, or make payment of the sum provided against a day certain, or when the child attains a certain age, &c.; for such rights, when perfected by infeftment, or secured by diligence, are effectual against all the posterior deeds of the father, even onerous.

Effects of provision to children.

18. Though all provisions to children, by a marriage contract conceived in the ordinary form, being merely rights of succession, are postponed to every onerous debt of the granter, even to those contracted posterior to the provisions; yet where a father executes a bond of provision to a child actually existing, whether such child be the heir of a marriage or not, a proper debt is thereby created, which, though it be without doubt gratuitous, is not only effectual against the father himself and his heirs, but is not reducible at the instance even of his prior onerous creditors, if he was solvent at the time of granting it. A father may, notwithstanding

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withstanding a first marriage contract, settle a jointure on a second wife, or provide the children of a second marriage; for such settlements are deemed onerous; but where they are exorbitant, they will be restricted to what is rational: and in all such settlements, where the provisions of the first marriage contract are encroached upon, the heirs of that marriage have recourse against the father, in case he should afterwards acquire a separate estate, which may enable him to fulfil both obligations.

Provision to heirs.

19. In marriage contracts, the conquest, or a certain part of it, is frequently provided to the issue; by which is understood whatever real addition shall be made to the father's estate during the marriage by purchase or donation. Conquest therefore must be free, i. e. what remains after payment of debts due by the father. As in other provisions, so in conquest, the father is still fiar, and may therefore dispose of it for onerous or rational causes. Where heritable rights are provided to the *heirs* of a marriage, they fall to the eldest son, for he is the heir at law in heritage. Where a sum of money is so provided, the word *heir* is applied to the subject of the provision, and so marks out the executor, who is the heir in moveables. When an heritable right is provided to the *bairns* (or issue) of a marriage, it is divided equally among the children, if no divison be made by the father; for such destination cuts off the exclusive right of the legal heir. No provision granted to bairns gives a special right of credit to any one child as long as the father lives: the right is granted *familiæ;* so that the whole must indeed go to one or other of them; but the father has a power inherent in him, to divide it among them in such proportions as he thinks best, yet so as none of them may be entirely excluded, except in extraordinary cases.

To bairns.

Clause of return.

20. A clause of return is that, by which a sum in a bond or other right, is in a certain event limited to return to the granter himself, or his heirs. When a right is granted for onerous causes, the creditor may defeat the clause of return, even gratuitously. But, where the sum in the right flows from the granter, or where there is any other reasonable clause for the provision of return in his favour, the receiver cannot disappoint it gratuitously. Yet since he is fiar, the sum may be either assigned by him for an onerous cause, or affected by his creditors.

Heirs.

21. An heir is, in the judgment of law, *eadem persona cum defuncto*, and so represents the deceased universally, not only in his rights, but in his debts: in the first view, he is said to be an heir *activè*; in the second, *passivè*. From this general rule are excepted, heirs substituted in a special bond, and even substituted in a disposition *omnium bonorum*, to take effect at the granter's death; for such substitutes are considered as singular successors, and their rights as an universal legacy, which does not subject the legatee *ultra valorem*: but heirs male or of tailzie, though their right be limited to special subjects, are liable not merely to the extent of the subject entailed or provided, but *in solidum;* because such rights are designed to carry a universal character, and so infer a universal representation of the granter. The heir of line is primarily liable for the debts of his predecessor; for he is the most proper heir, and so must be discussed before any other can be pursued; next to him the heir of conquest, because he also succeeds to the *universitas* of the whole heritable rights which his predecessor had acquired by singular titles; then, the heir male, or of a marriage; for their propinquity of blood subjects them more directly than any other heir of tailzie, who may possibly be a stranger; and who for that reason is not liable to be discussed, except for such of the predecessor's debts or deeds as relate specially to the lands tailzied; as to which he is liable even before the heir of line. Heirs portioners are liable *pro rata* for their predecessor's debts; but if any of them prove insolvent, the creditors may, after discussing her, insist for her share against the rest, who will be liable in so far as they are *lucratæ* by the succession. Where an heir, liable *subsidiariè*, pays the predecessor's debt, he has relief against the heir who is more directly liable, in respect of whom he is not co-heir, but creditor.

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22. Before an heir can have an active title to his ancestor's rights, he must be entered by service and retour. He who is entitled to enter heir, is, before his actual entry, called *apparent heir*. The bare right of apparency carries certain privileges with it. An apparent heir may defend his ancestor's titles against any third party who brings them under challenge. Tenants may safely pay him their rents; and after they have once acknowledged him by payment, he may compel them to continue it; and the rents not uplifted by the apparent heir belong to the executors, upon his death.

Apparent heirs.

23. As an heir is, by his entry, subjected universally to his ancestor's debts, apparent heirs have therefore a year (*annus deliberandi*) allowed to them from the ancestor's decease, to deliberate whether they will enter or not: till the expiry of which, though they may be charged by creditors to enter, they cannot be sued in any process founded upon such charge. Though declaratory actions, and others which contain no personal conclusion, may be pursued against the apparent heir without a previous charge, action does not lie even upon these, within the year, if the heir cannot make the proper defence without incurring a passive title. But judicial sales, commenced against an ancestor, may by special act of sederunt be continued upon a citation of the heir, without waiting the year of deliberating. This *annus deliberandi* is computed, in the case of a posthumous heir, from the birth of such heir. An apparent heir, who, by immixing with the estate of his ancestor, is as much subjected to his debts as if he had entered, can have no longer a right to deliberate whether he will enter or not.

Jus deliberandi.

24. All services proceed on brieves from the chancery, which are called *brieves of inquest*, and have been long known in Scotland. The judge, to whom the brief is directed, is required to try the matter by an inquest of 15 sworn men. The inquest, if they find the claim verified, must declare the claimant heir to the deceased, by a verdict or service, which the judge must attest, and return the brief, with the service proceeding on it, to the chancery; from which an extract is obtained called the *retour of the service*.

Service of heirs.

25. The service of heirs is either *general* or *special*. A *general* service vests the heir in the right of all heritable subjects, which either do not require seisin, or which have not been perfected by seisin in the person of the ancestor. A public right, therefore, according to

General and special.

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the feudal law, though followed by seisin, having no legal effects till it be confirmed by the superior, must, as a personal right, be carried by a general service. A *special* service, followed by seisin, vests the heir in the right of the special subjects in which the ancestor died infeft.

Entry by inventory.

26. If an heir, doubtful whether the estate of his ancestor be sufficient for clearing his debts, shall, at any time within the *annus deliberandi*, exhibit upon oath a full inventory of all his ancestor's heritable subjects to the clerk of the shire where the lands lie; or, if there is no heritage requiring seisin, the clerk of the shire where he died; and if, after the same is subscribed by the sheriff or sheriff-depute, the clerk, and himself, and registered in the sheriff's books, the extract thereof shall be registered within four days after expiry of the *annus deliberandi* in the general register appointed for that purpose, his subsequent entry will subject him no farther than to the value of such inventory. If the inventory be given up and registered within the time prescribed, the heir may serve on it, even after the year.

27. Creditors are not obliged to acquiesce in the value of the estate given up by the heir; but, if they be real creditors, may bring the estate to a public sale, in order to discover its true value; since an estate is always worth what can be got for it. An heir by inventory, as he is in effect a trustee for the creditors, must account for that value to which the estate may have been improved since the death of the ancestor, and he must communicate to all the creditors the cases he has got in transacting with any one of them.

Entry upon a precept of *clare constat.*

28. Practice has introduced an anomalous sort of entry, without the interposition of an inquest, by the sole consent of the superior; who, if he be satisfied that the person applying to him is the next heir, grants him a precept (called of *clarè constat*, from the first words of its recital), commanding his bailie to infeft him in the subjects that belonged to his ancestor. The heir, by taking seisin on this precept, becomes *passivè* liable for all the debts on his ancestor; and, on the other hand, acquires an active title, as to the subjects contained in the precept in questions with the superior or his heirs; and they may, when followed by seisin, afford a title of prescription: But as no person can be declared an heir by private authority, they cannot bar the true heir from entering after 20 years, as a legal entry would have done; the true heir, in such case, having it still in his power to set aside that right, and obtain himself regularly served at any time within the years of prescription. Of the same nature is the entry by hasp and staple, commonly used in burgage tenements of houses; by which the bailie, without calling an inquest, cognosces or declares a person heir, upon evidence, brought before himself; and, at the same time, infefts him in the subject, by the symbol of the hasp and staple of the door. Charges given by creditors to apparent heirs to enter, stand in the place of an actual entry, so as to support the creditor's diligence (clxxii. 2.).

Entry by hasp and staple.

A special service includes a general one.

29. A general service cannot include a special one; since it has no relation to any special subject, and carries only that class of rights on which seisin has not proceeded: but a special service implies a general one of the same kind or character, and consequently carries even such rights as have not been perfected by seisin. Service is not required to establish the heir's right in titles of honour, or offices of the highest dignity; for these descend *jure sanguinis*.

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Passive titles.

30. An heir, by immixing with his ancestor's estate without entry, subjects himself to his debts, as if he had entered; or, in our law phrase, incurs a passive title. The only passive title by which an apparent heir becomes liable universally for all his ancestor's debts, is *gestio pro hærede*, or his behaving as none but an heir has right to do. Behaviour as heir is inferred from the apparent heir's intromission, after the death of the ancestor with any part of the lands or other heritable subjects belonging to the deceased, to which he himself might have completed an active title by entry.

Gestio pro hærede.

31. This passive title is excluded, if the heir's intromission be by order of law; or if it be founded on singular titles, and not as heir to the deceased. But an apparent heir's purchasing any right to his ancestor's estate, otherwise than at public roup (auction), or his possessing it in virtue of rights settled in the person of any near relation of the ancestor, to whom he himself may succeed as heir, otherwise than upon purchase by public sale, is deemed behaviour as heir.

32. Behaviour as heir is also excluded where the intromission is small, unless an intention to defraud the ancestor's creditors be presumable from the circumstances attending it. Neither is behaviour inferred against the apparent heir, from the payment of his ancestor's debt, which is a voluntary act, and profitable to the creditors: nor by his taking out of brieves to serve; for one may alter his purpose, while it is not completed: nor by his assuming the titles of honour belonging to his ancestor, or exercising an honorary office hereditary in the family; for these rights answer to the blood, which may be used without proper representation. But the exercising an heritable office of profit, which may pass by voluntary conveyance, and consequently is adjudgeable, may reasonably be thought to infer a passive title. Lastly, as passive titles have been introduced merely for the security of creditors; therefore, where questions conceiving behaviour arise among the different orders of heirs, they are liable to one another no farther than *in valorem* of their several intromissions.

Præceptio hæreditatis.

33. Another passive title in heritage, may be incurred by the apparent heir's accepting a gratuitous right from the ancestor, to any part of the estate to which he himself might have succeeded as heir; and it is called *præceptio hæreditatis*, because it is a taking of the succession by the heir before it opens to him by the death of his ancestor. If the right be onerous, there is no passive title; if the consideration paid for it does not amount to its full value, the creditors of the deceased may reduce it, in so far as it is gratuitous, but still it infers no passive title.

34. The heir incurring this passive title is no farther liable, than if he had at the time of his acceptance entered heir to the granter, and so subjected himself to the debts that were then chargeable against him; but with the posterior debts he has nothing to do, not even with those contracted between the date of the right and the infeftment taken upon it, and he is therefore called *successor titulo lucrativo post contractum debitum*.

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35. Neither of these passive titles takes place, unless the subject intermeddled with or disponed be such as the intromitter or receiver would succeed to as heir. In this also, these two passive titles agree, that the intromission in both must be after the death of the ancestor; for there can be no *termini habiles* of a passive title, while the ancestor is alive. But in the following respect they differ: *Gestio pro hærede*, being a vicious passive title founded upon a quasi delict, cannot be objected against the delinquent's heir, if process has not been litiscontested while the delinquent himself was alive; whereas the *successor titulo lucrativo* is by the acceptance of the disposition understood to have entered into a tacit contract with the granter's creditors, by which he undertakes the burden of their debts; and all actions founded on contract are transmissible against heirs.

Other passive titles.

36. An apparent heir, who is cited by the ancestor's creditor in a process for payment, if he offers any peremptory defence against the debt, incurs a passive title; for he can have no interest to object against it, but in the character of heir. In the same manner, the heir's not renouncing upon a charge to enter heir, infers it: But the effect of both these is limited to the special debt pursued for, or charged upon. This passive title, which is inferred from the heir's not renouncing, has no effect till decree pass against him; and even a renunciation offered after decree, if the decree be in absence, will entitle the heir to a suspension of all diligence against his person and estate, competent upon his ancestor's debts.

37. By the principles of the feudal law, an heir, when he is to complete his titles by special service, must necessarily pass over his immediate ancestor, *e. g.* his father, if he was not infeft; and serve heir to that ancestor who was last vested and seized in the right, and in whose *hæreditatis jacens* the right must remain, till a title be connected thereto from him. As this bore hard upon creditors who might think themselves secure in contracting with a person whom they saw for some time in the possession of an estate, and from thence concluded that it was legally vested in him; it is therefore provided by act 1695, that every person, passing over his immediate ancestor who had been three years in possession, and serving heir to one more remote, shall be liable for the debts and deeds of the person interjected, to the value of the estate to which he is served. This being correctory of the feudal maxims, has been strictly interpreted, so as not to extend to the gratuitous deeds of the person interjected, nor to the case where the interjected person was a naked fiar, and possessed only civilly through the liferenter.

Reduction by the heir *ex capite lecti.*

38. Our law, from its jealousy of the weakness of mankind while under sickness, and of the importunity of friends on that occasion, has declared that all deeds affecting heritage, if they be granted by a person on deathbed, (*i. e.* after contracting that sickness which ends in death, to the damage of the heir, are ineffectual, except where the debts of the granter have laid him under a necessity to alien his lands. As this law of deathbed is founded solely in the privilege of the heir, deathbed deeds, when consented to by the heir, are not reducible. The term properly opposed to deathbed is *liege poustie*, by which is understood a state of health; and it gets the name, because persons in health have the *legitima potestas*, or lawful power, of disposing of their property at pleasure.

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What constitutes a deathbed deed.

39. The two extremes being proved, of the granter's sickness immediately before signing, and of his death following it, though at the greatest distance of time, did, by our former law, found a presumption that the deed was granted on deathbed, which could not have been elided but by a positive proof of the granter's convalescence; but now the allegation of deathbed is also excluded, by his having lived 60 days after signing the deed. The legal evidence of convalescence is the granter's having been, after the date of the deed, at kirk *OR* market unsupported; for a proof of either will secure the deed from challenge. The going to kirk or market must be performed when the people are met together in the church or churchyard for any public meeting, civil or ecclesiastical, or in the market place at the time of public market. No other proof of convalescence is receivable, because at kirk and market there are always present unsuspected witnesses, which we can hardly be sure of in any other case.

To what heirs this reduction is competent.

40. The privilege of setting aside deeds *ex capite lecti* is competent to all heirs, not to heirs of line only, but of conquest, tailzie, or provision: not only to the immediate, but to remoter heirs, as soon as the succession opens to them. But, where it is consented to or ratified by the immediate heir, it is secured against all challenge, even from the remoter. Yet the immediate heir cannot, by any antecedent writing, renounce his right of reduction, and thereby give strength to deeds that may be afterwards granted *in lecto* to his hurt; for no private renunciation can authorise a person to act contrary to a public law; and such renunciation is presumed to be extorted through the fear of exheredation. If the heir should not use this privilege of reduction, his creditor may, by adjudication, transfer it to himself; or he may, without adjudication, reduce the deed, libelling upon his interest as creditor to the heir: But the granter's creditors have no right to this privilege, in regard that the law of deathbed was introduced, not in behalf of the granter himself, but of his heir.

What rights may be thus set aside.

41. The law of deathbed strikes against dispositions of every subject to which the heir would have succeeded, or from which he would have had any benefit, had it not been so disponed. Deathbed deeds granted in consequence of a full or proper obligation in *liege poustie*, are not subject to reduction; but, where the antecedent obligation is merely natural, they are reducible. By stronger reason, the deceased cannot, by a deed merely voluntary, alter the nature of his estate on deathbed to the prejudice of his heir, so as from heritable to make it moveable; but if he should, in *liege poustie*, exclude his apparent heir, by an irrevocable deed containing reserved faculties, the heir cannot be heard to quarrel the exercise of these faculties on deathbed.

42. In a competition between the creditors of the deceased and of the heir, our law (act 1661) has justly preferred the creditors of the deceased, as every man's estate ought to be liable, in the first place, for his own debt. But this preference is, by the statute, limited to the case where the creditors of the deceased have used diligence against their debtor's estate, within three years from his death; and therefore the heir's

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creditors may, after that period, affect it for their own payment. All dispositions by an heir, of the ancestor's estate, within a year after his death, are null, in so far as they are hurtful to the creditors of the ancestor. This takes place, though these creditors should have used no diligence, and even where the dispositions are granted after the year: It is thought they are ineffectual against the creditors of the deceased who have used diligence within the three years.

clxxxi. SECT. XXI. *Of Succession in Moveables.*

Moveable succession by law.

1. In the succession of moveable rights, it is an universal rule, that the next in degree to the deceased (or next of kin) succeeds to the whole; and if there are two or more equally near, all of them succeed by equal parts, without that prerogative, which takes place in heritage, of the eldest son over the younger, or of males over females. Neither does the right of representation (explained N° clxxx. 4.) obtain in the succession of moveables, except in the single case of a competition between the full blood and the half blood; for a niece by the full blood will be preferred before a brother by the half blood, though she is by one degree more remote from the deceased than her uncle. Where the estate of a person deceased consists partly of heritage, and partly of moveables, the heir in the heritage has no share of the moveables, if there are others as near in degree to the deceased as himself: But where the heir, in such case, finds it his interest to renounce his exclusive claim to the heritage, and betake himself to his right as one of the next of kin, he may collate or communicate the heritage with the others, who in their turn must collate the moveables with him; so that the whole is thrown into one mass, and divided equally among all of them. This doctrine holds, not only in the line of descendants, but of collaterals; for it was introduced, that the heir might in no case be worse than the other next of kin.

Succession in moveables by destination.

2. One may settle his moveable estate upon whom he pleases, excluding the legal successor, by a testament; which is a written declaration of what a person wills to be done with his moveable estate after his death. No testamentary deed is effectual till the death of the testator; who may therefore revoke it at pleasure, or make a new one, by which the first loses its force, according to the rule, *voluntas testatoris est ambulatoria usque ad mortem;* and hence testaments are called *last* or *latter wills*. Testaments, in their strict acceptation, must contain a nomination of executors, i. e. of persons appointed to administer the succession according to the will of the deceased: Yet nothing hinders one from making a settlement of moveables, in favour of an universal legatee, though he should not have appointed executors; and on the other part, a testament where executors are appointed is valid, though the person who is to have the right of succession should not be named. In this last case, if the executor nominated be a stranger, i. e. one who has no legal interest in the moveable estate, he is merely a trustee, accountable to the next of kin; but he may retain a third of the dead's part (explained par. 6.) for his trouble in executing the testament; in payment of which, legacies, if any be left to him, must be imputed. The heir, if he be named executor, has right to the third as a stranger; but if one be named who has an interest in the legal succession, he has no allowance, unless such interest be less than a third. Nuncupative or verbal testaments are not, by the law of Scotland, effectual for supporting the nomination of an executor, let the subject of the succession be ever so small: But verbal legacies, not exceeding 100l. Scots, are sustained: and even where they are granted for more, they are ineffectual only as to the excess.

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Legacy.

3. A legacy is a donation by the deceased, to be paid by the executor to the legatee. It may be granted either in the testament or in a separate writing. Legacies are not due till the granter's death; and consequently they can transmit no right to the executors of the legatee, in the event that the granter survives him. A case occurred some years ago, where a testator left a legacy *payable when* the legatee arrived at a certain age. The legatee survived the testator, but died before the legacy was payable. It was found, chiefly upon the authority of the Roman law, that the legacy vested in the legatee *à morte testatoris*, and upon his decease was due to the legatee's next of kin.

4. Legacies, where they are general, i. e. of a certain sum of money indefinitely, give the legatee no right in any one debt or subject; he can only insist in a personal action against the executor for payment out of the testator's effects. A special legacy, i. e. of a particular debt due to the deceased, or of a particular subject belonging to him, is of the nature of an assignation, by which the property of the special debt or subject vests, upon the testator's death, in the legatee, who can therefore directly sue the debtor or possessor: Yet as no legacy can be claimed till the debts are paid, the executor must be cited in such process, that it may be known, whether there are free effects sufficient for answering the legacy. Where there is not enough for payment of all the legacies, each of the general legatees must suffer a proportional abatement: But a special legatee gets his legacy entire, though there should be nothing over for payment of the rest; and, on the contrary, he has no claim, if the debt or subject bequeathed should perish, whatever the extent of the free executry may be.

Who can test, and under what restrictions.

5. Minors, after puberty, can test without their curators, wives without their husbands, and persons interdicted without their interdictors: but bastards cannot test, except in the cases afterwards set forth, N° clxxii.

3. As a certain share of the goods, falling under the communion that is consequent on marriage, belongs, upon the husband's decease, to his widow, *jure relictæ*, and a certain share to the children, called the *legitime*, *portion natural*, or *bairns part of gear;* one who has a wife or children, though he be the absolute administrator of all these goods during his life, and consequently may alien them by a deed *inter vivos*, in *liege poustie*, even gratuitously, if no fraudulent intention to disappoint the wife or children shall appear, yet cannot impair their shares gratuitously on deathbed: nor can he dispose of his moveables to their prejudice by testament, though it should be made in *liege poustie;* since testaments do not operate till the death of the testator,

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at which period the division of the goods in communion have their full effect in favour of the widow and children.

Division of a testament.

6. If a person deceased leaves a widow, but no child, his testament, or, in other words, the goods in communion, divide in two: one half goes to the widow: the other is the dead's part, i. e. the absolute property of the deceased, on which he can test, and which falls to his next of kin, if he dies intestate. Where he leaves children, one or more, but no widow, the children get one half as their legitime: the other half is the dead's part: which falls also to the children, if the father has not tested upon it. If he leaves both widow and children, the division is tripartite: the wife takes one-third by herself; another falls, as legitime, to the children equally among them, or even to an only child, though he should succeed to the heritage; the remaining third is the dead's part. Where the wife predeceases without children, one half is retained by the husband, the other falls to her next of kin: Where she leaves children, the division ought also to be bipartite, by the common rules of society, since no legitime is truly due on a mother's death: yet it is in practice tripartite; two-thirds remain with the surviving father, as if one-third were due to him *proprio nomine*, and another as administrator of the legitime for his children; the remaining third, being the wife's share, goes to her children, whether of that or any former marriage: for they are all equally her next of kin.

What debts affect the executry.

7. Before a testament can be divided, the debts owing by the deceased are to be deducted; for all executry must be free. As the husband has the full power of burdening the goods in communion, his debts affect the whole, and so lessen the legitime and the share of the relict, as well as the dead's part. His funeral charges, and the mournings and alimony due to the widow, are considered as his proper debts; but the legacies, or other gratuitous rights granted by him on deathbed, affect only the dead's part. Bonds bearing interest, due by the deceased, cannot diminish the relict's share, because such bonds, when due to the deceased, do not increase it. The funeral charges of the wife predeceasing, fall wholly on her executors who have right to her share. Where the deceased leaves no family, neither husband, wife, nor child, the testament suffers no division, but all is the dead's part.

8. The whole issue of the husband, not only by that marriage which was dissolved by his death, but by any former marriage, has an equal interest in the legitime; otherwise the children of the first marriage would be cut out, as they could not claim the legitime during their father's life. But no legitime is due, (1.) Upon the death of a mother. (2.) Neither is it due to grandchildren, upon the death of a grandfather. Nor, (3.) To children forisfamiliated, i. e. to such as, by having renounced the legitime, are no longer considered as *in familia*, and so are excluded from any farther share of the moveable estate than they have already received.

Renunciation of the legitime.

9. As the right in legitime is strongly founded in nature, the renunciation of it is not to be inferred by implication. Renunciation by a child of his claim of legitime has the same effect as his death, in favour of the other children entitled thereto; and consequently the share of the renouncer divides among the rest; but he does not thereby lose his right to the dead's part, if he does not also renounce his share in the father's executry. Nay, his renunciation of the legitime, where he is the only younger child, has the effect to convert the whole subject thereof into dead's part, which will therefore fall to the renouncer himself as next of kin, if the heir be not willing to collate the heritage with him. Yet it has been found that the renunciation of the only younger child made the whole legitime accrue to the heir without collation.

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Collation among younger children.

10. For preserving an equality among all the children who continue entitled to the legitime, we have adopted the Roman doctrine of *collatio bonorum*; whereby the child, who has got a provision from his father, is obliged to collate it with the others, and impute it towards his own share of the legitime; but if from the deed of provision, the father shall appear to have intended it as a *præcipuum* to the child, collation is excluded. A child is not bound to collate an heritable subject provided to him, because the legitime is not impaired by such provision. As this collation takes place only in questions among children who are entitled to the legitime, the relict is not bound to collate donations given her by her husband, in order to increase the legitime; and on the other part, the children are not obliged to collate their provisions, in order to increase her share.

Confirmation.

11. As an heir in heritage must complete his titles by entry, so an executor is not vested in the right of the moveable estate of the deceased without confirmation. Confirmation is a sentence of the commissary or bishop's court, empowering an executor, one or more, upon making inventory of the moveables pertaining to the deceased, to recover, possess, and administer them, either in behalf of themselves, or of others interested therein. Testaments must be confirmed in the commissariot where the deceased had his principal dwelling house at his death. If he had no fixed residence, or died in a foreign country, the confirmation must be at *Edinburgh*, as the *commune forum*; but if he went abroad with an intention to return, the commissariot within which he resided before he left Scotland, is the only proper court.

12. Confirmation proceeds upon an edict, which is affixed on the door of the parish church where the deceased dwelt, and serves to intimate to all concerned the day of confirmation, which must be nine days at least after publishing the edict. In a competition for the office of executor, the commissary prefers, *primo loco*, the person named to it by the deceased himself, whose nomination he ratifies or confirms, without any previous decerniture: this is called the confirmation of a testament testamentary. In default of an executor named by the deceased, universal disponees are by the present practice preferred; after them the next of kin; then the relict; then creditors; and, lastly, special legatees. All these must be decerned executors, by a sentence called a *decree-dative*; and if afterwards they incline to confirm, the commissary authorizes them to administer, upon their making inventory, and giving security to make the subject thereof forthcoming to all having interest; which is called the confirmation of a testament dative.

Confirmation *qua* executor-creditor.

13. A creditor, whose debtor's testament is already confirmed, may sue the executor, who holds the office for all concerned, to make payment of his debt. Where there

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there is no confirmation, he himself may apply for the office, and confirm as executor-creditor; which entitles him to sue for and receive the subject confirmed, for his own payment: and where one applies for a confirmation as executor-creditor, every co-creditor may apply to be conjoined with him in the office. As this kind of confirmation is simply a form of diligence, creditors are exempted from the necessity of confirming more than the amount of their debts.

14. A creditor, whose debt has not been constituted or his claim not closed by decree, during the life of his debtor, has no title to demand directly the office of executor *qua* creditor: but he may charge the next of kin who stands off, to confirm, who must either renounce within twenty days after the charge, or be liable for the debt; and if the next of kin renounces, the pursuer may constitute his debt, and obtain a decree *cognitionis causa*, against the *hæreditas jacens* of the moveables, upon which he may confirm as executor-creditor to the deceased. Where one is creditor, not to the deceased, but to his next of kin who stands off from confirming, he may affect the moveables of the deceased, by obtaining himself decerned executor-dative to the deceased, as if he were creditor to him, and not to his next of kin.

Confirmation *ad omissa*, &c.

15. Where an executor has either omitted to give up any of the effects belonging to the deceased in inventory, or has estimated them below their just value, there is place for a new confirmation, *ad omissa*, *vel malè appretiata*, at the suit of any having interest; and if it appears that he has not omitted or undervalued any subject *dolosè*, the commissary will ordain the subjects omitted, or the difference between the estimations in the principal testament and the true values, to be added thereto; but if dole shall be presumed, the whole subject of the testament *ad omissa vel malè appretiata*, will be carried to him who confirms it, to the exclusion of the executor in the principal testament.

Legitime &c. transmit without confirmation.

16. The legitime and relict's share, because they are rights arising *ex lege*, operate *ipso jure*, upon the father's death, in favour of the relict and children; and consequently pass from them, though they should die before confirmation, to their next of kin: whereas the dead's part, which falls to the children or other next of kin in the way of succession, remains, if they should die before confirming, *in bonis* of the first deceased; and so does not descend to their next of kin, but may be confirmed by the person who, at the time of confirmation, is the next of kin to the first deceased. Special assignations, though neither intimated nor made public during the life of the granter, carry to the assignee the full right of the subjects assigned, without confirmation. Special legacies are really assignations, and so fall under this rule. The next of kin, by the bare possession of the *ipsa corpora* of moveables, acquires the property thereof without confirmation, and transmits it to his executors.

Partial confirmation.

17. The confirmation of any one subject by the next of kin, as it proves his right of blood, has been adjudged to carry the whole executry out of the testament of the deceased, even what was omitted, and to transmit all to his own executors. The confirmation of a stranger, who is executor nominated, as it is merely a trust for the next of kin, has the effect to establish the right of the next of kin to the subjects confirmed, in the same manner as if himself had confirmed them.

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Executors, how far liable.

18. Executry, though it carries a certain degree of representation of the deceased, is properly an office: executors therefore are not subjected to the debts due by the deceased, beyond the value of the inventory; but, at the same time, they are liable in diligence for making the inventory effectual to all having interest. An executor-creditor who confirms more than his debt amounts to, is liable in diligence for what he confirms. Executors are not liable in interest, even upon such bonds recovered by them as carried interest to the deceased, because their office obliges them to retain the sums they have made effectual, in order to a distribution thereof among all having interest. This holds though they should again lend out the money upon interest, as they do it at their own risk.

In what cases they may pay without sentence.

19. There are certain debts of the deceased called privileged debts, which were always preferable to every other. Under that name are comprehended, medicines furnished to the deceased on deathbed, physicians fees during that period, funeral charges, and the rent of his house, and his servants wages for the year or term current at his death. These the executors are in safety to pay on demand. All the other creditors, who either obtain themselves confirmed, or who cite the executor already confirmed, within six months after their debtor's death, are preferred, *pari passu*, with those who have done more timely diligence; and therefore no executor can either retain for his own debt, or pay a testamentary debt, so as to exclude any creditor, who shall use diligence within the six months, from the benefit of the *pari passu* preference; neither can a decree for payment of debt be obtained, in that period, against an executor, because, till that term be elapsed, it cannot be known how many creditors may be entitled to the fund in his hands. If no diligence be used within the six months, the executor may retain for his own debt, and pay the residue *primo venienti*. Such creditors of the deceased as have used diligence within a year after their debtor's death, are preferable on the subject of his testament to the creditors of his next of kin.

Vitious intromission.

20. The only passive title in moveables is vitious intromission; which may be defined, an unwarrantable intermeddling with the moveable estate of a person deceased, without the order of law. This is not confined, as the passive titles in heritage are, to the persons interested in the succession, but strikes against all intromitters whatever. Where an executor confirmed intromits with more than he has confirmed, he incurs a passive title; fraud being in the common case presumed from his not giving up in inventory the full subject intermeddled with. Vitious intromission is also presumed, where the repositories of a dying person are not sealed up, as soon as he becomes incapable of sense, by his nearest relations; or, if he dies in a house not his own, they must be sealed by the master of such house, and the keys delivered to the judge ordinary, to be kept by him, for the benefit of all having interest.

21. The passive title of vitious intromission does not take place where there is any probable title or circumstance that takes off the presumption or fraud. In consequence of this rule, necessary intromission, or *custodiæ causa*,

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causa, by the wife or children, who only continue the possession of the deceased, in order to preserve his goods for the benefit of all concerned, infers no passive title. And upon the same principle, an intromitter, by confirming himself executor, and thereby subjecting himself to account, before action be brought against him on the passive titles, purges the vitiosity of his prior intromission: and where the intromitter is one who is interested in the succession, e. g. next of kin, his confirmation, at any time within a year from the death of the deceased, will exclude the passive title, notwithstanding a prior citation. As the passive title was intended only for the security of creditors, it cannot be sued upon by legatees; and since it arises *ex delicto*, it cannot be pleaded against the heir of the intromitter. As in delicts, any one of many delinquents may be subjected to the whole punishment, so any one of many intromitters may be sued *in solidum* for the pursuer's debt, without calling the rest; but the intromitter who pays, has an action of relief against the others for their share of it. If the intromitters are sued jointly, they are liable, not *pro rata* of their several intromissions, but *pro virili*.

Mutual relief betwixt the heir and executor.

22. The whole of a debtor's estate is subjected to the payment of his debts; and therefore, both his heirs and executors are liable for them, in a question with creditors: but a succession is by law divided into the heritable and the moveable estate, each of these ought, in a question between the several successors, to bear the burdens which naturally affect it. Action of relief is accordingly competent to the heir who has paid a moveable debt, against the executor; and *vice versa*. This relief is not cut off by the deceased's having disponed either his land estate or his moveables, with the burden of his *whole* debts; for such burden is not to be construed as an alteration of the legal succession, but merely as a farther security to creditors, unless the contrary shall be presumed from the special style of the disposition.

IV. Of LAST HEIRS and BASTARDS.

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Where there is no heir, the king succeeds.

1. By our ancient practice, feudal grants taken to the vassal, and to a special order of heirs, without settling the last termination upon *heirs whatsoever*, returned to the superior, upon failure of the special heirs therein contained; but now that feus are become patrimonial rights, the superior is, by the general opinion, held to be fully divested by such grant, and the right descends to the vassal's heirs at law. And even where a vassal dies without leaving any heir who can prove the remotest propinquity to him, it is not the superior, as the old law stood, but the king, who succeeds as last heir, both in the heritable and moveable estate of the deceased, in consequence of the rule, *Quod nullius est, cedit domino Regi*.

2. If the lands to which the king succeeds be holden immediately of himself, the property is consolidated with the superiority, as if resignation had been made in the sovereign's hand. If they are holden of a subject, the king, who cannot be vassal to his own subject, names a donatory; who, to complete his title, must obtain a decree of declaratory; and thereafter be is presented to the superior, by letters of presentation from the king under the quarter seal, in which the superior is charged to enter the donatory. The whole estate of the deceased, is, in this case, subject to his debts, and to the widow's legal provisions. Neither the king nor his donatory is liable beyond the value of the succession. A person who has no heir to succeed to him, cannot alien his heritage *in lecto*, to the prejudice of the king, who is entitled to set aside such deed, in the character of *ultimus hæres*.

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King succeeds as *ultimus hæres* to the bastard.

3. A bastard can have no legal heirs, except those of his own body; since there is no succession but by the father, and a bastard has no certain father. The king therefore succeeds to him, failing his lawful issue as last heir. Though the bastard, as absolute proprietor of his own estate, can dispose of his heritage in *liege poustie*, and of his moveables by any deed *inter vivos*; yet he is disabled *ex defectu natalium*, from bequeathing by testament, without letters of legitimation from the sovereign. If the bastard has lawful children, he may test without such letters, and name tutors and curators to his issue. Letters of legitimation, let their clauses be ever so strong, cannot enable the bastard to succeed to his natural father, to the exclusion of lawful heirs.

Bastards incapable of legal but not of destined succession.

4. The legal rights of succession, being founded in marriage, can be claimed only by those who are born in lawful marriage; the issue therefore of an unlawful marriage are incapable of succession. A bastard is excluded, (1.) From his father's succession; because law knows no father who is not marked out by marriage. (2.) From all heritable succession, whether by the father or mother; because he cannot be pronounced lawful heir by the inquest, in terms of the brief. And, (3.) From the moveable succession of his mother; for though the mother be known, the bastard is not her lawful child, and legitimacy is implied in all succession conferred by law. A bastard, though he cannot succeed *jure sanguinis*, may succeed by destination, where he is specially called to the succession by an entail or testament.

Aliens cannot succeed in feudal rights;

5. Certain persons, though born in lawful marriage, are incapable of succession. Aliens are, from their allegiance to a foreign prince, incapable of succeeding in *feudal rights*, without naturalization. Children born in a foreign state, whose fathers were natural born subjects, and not attainted, are held to be natural born subjects. Persons educated in, or professing the Popish religion, if they shall neglect, upon their attaining the age of 15, to renounce its doctrines by a signed declaration, cannot succeed in *heritage*: but must give place to the next Protestant heir, who will hold the estate irredeemably, if the Popish heir does not, within ten years after incurring the irritancy, sign the *formula* prescribed by the statute 1700, c. 3.

nor Papists.

Chap. III. *Of* Actions.

Hitherto of *Persons*, and *Rights*, the two first objects of law: *Actions* are its third object, whereby persons make their rights effectual.

Sect. I. *Nature, Division, &c, of Actions.*

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An action, what.

1. An action may be defined, A demand regularly made and insisted in, before the judge competent, for the attaining

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taining or recovering of a right; and it suffers several divisions, according to the different natures of the rights pursued upon.

Division of actions.

2. Actions are either real or personal. A real action is that which arises from a right in the thing itself, and which therefore may be directed against all possessors of that thing: thus, an action for the recovery, even of a moveable subject, when founded on a *jus in re*, is in the proper acceptation real; but real actions are, in vulgar speech, confined to such as are directed against heritable subjects. A personal action is founded only on an obligation undertaken for the performance of some fact, or the delivery of some subject; and therefore can be carried on against no other than the person obliged, or his heirs.

3. Actions, again, are either ordinary or rescissory. All actions are, in the sense of this division, ordinary, which are not rescissory. Rescissory actions are divided, (1.) Into actions of proper improbation. (2.) Actions of reduction-improbation. (3.) Actions of simple reduction. Proper improbations, which are brought for declaring writings false or forged, are noticed below, N° clxxxvi. 32. Reduction-improbation is an action, whereby a person who may be hurt or affected by a writing, insists for producing or exhibiting it in court, in order to have it set aside, or its effect ascertained, under the certification that the writing, if not produced, shall be declared false and forged. This certification is a fiction of law, introduced that the production of writings may be more effectually forced, and therefore it operates only in favour of the pursuer. Because the summons in the action proceeds on alleged grounds of falsehood, his majesty's advocate, who is the public prosecutor of crimes, must concur in it.

Reduction improbation.

4. As the certification in this process draws after it so heavy consequences, two terms are assigned to the defenders for production. After the second term is elapsed, intimation must be made judicially to the defender, to satisfy the production within ten days; and till these are expired, no certification can be pronounced. Certification cannot pass against deeds recorded in the books of session, if the defender shall, before the second term, offer a condescendence of the dates of their registration, unless falsehood be objected: in which case, the original must be brought from the record to the court. But an extract from the inferior court is no bar to certification; the principal writing must be laid before the court of session on a proper warrant.

Simple reduction.

5. In an action of simple reduction the certification is only temporary, declaring the writings called for null, until they be produced; so that they recover their full force after production, even against the pursuer himself; for which reason, that process is now seldom used. Because its certification is not so severe as in reduction-improbation, there is but one term assigned to the defender for producing the deeds called for.

Grounds of reduction.

6. The most usual grounds of reduction of writings are, the want of the requisite solemnities; that the granter was minor, or interdicted, or inhibited; or that he signed the deed on deathbed, or was compelled or frightened into it, or was circumvented; or that he granted it in prejudice of his lawful creditors.

7. In reduction on the head of force, or fear, or fraud and circumvention, the pursuer must libel the particular circumstances from which his allegation is to be proved. Reduction is not competent upon every degree of force or fear; it must be such as would shake a man of constancy and resolution. Neither is it competent, on that fear which arises from the just authority of husbands or parents, over their wives or children, nor upon the fear arising from the regular execution of lawful diligence by caption, provided the deeds granted under that fear relate to the ground of debt contained in the diligence; but if they have no relation to that debt, they are reducible *ex metu*.

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8. Alienations granted by debtors after contracting of lawful debts, in favour of conjunct or confident persons, without just and necessary causes, and without a just price really paid, are, by the act 1621, declared to be null. One is deemed a prior creditor, whose ground of debt existed before the right granted by the debtor; though the written voucher of the debt should bear a date posterior to it. Persons are accounted conjunct, whose relation to the granter is so near, as to bar them from judging in his cause. Confident persons are those who appear to be in the granter's confidence, by being employed in his affairs or about his person; as a doer, steward, or domestic servant.

9. Rights, though gratuitous, are not reducible, if the granter had, at the date thereof, a sufficient fund for the payment of his creditors. Provisions to children are, in the judgment of law, gratuitous; so that their effect, in a question with creditors, depends on the solvency of the granter; but settlements to wives, either in marriage contracts, or even after marriage, are onerous, in so far as they are rational; and consequently are not reducible, even though the granter was insolvent. This rule holds also in rational tochers contracted to husbands: But it must, in all cases, be qualified with the limitation, *if the insolvency of the granter was not publicly known;* for if it was, fraud is presumed in the receiver of the right, by contracting with the bankrupt.

10. The receiver of the deed, if he be a conjunct or confident person, must instruct or support the onerous cause of his right, not merely by his own oath, but by some circumstances or adminicles. But where a right is granted to a stranger, the narrative of it expressing an onerous cause, is sufficient *per se* to secure it against reduction.

11. All voluntary payments or rights made by a bankrupt to one creditor, to disappoint the more timorous diligence of another, are reducible at the instance of that creditor who has used the prior diligence. A creditor, though his diligence be but begun by citation, may insist in a reduction of all posterior voluntary rights granted to his prejudice; but the creditor who neglects to complete his begun diligence within a reasonable time, is not entitled to reduce any right granted by the debtor, after the time that the diligence is considered as abandoned.

12. A prohibited alienation, when conveyed by the receiver to another who is not privy to the fraud, subsists in the person of the *bona fide* purchaser. In the case of moveable rights, this nullity is receivable by exception; but it must be declared by reduction, where the right is heritable.

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13. By act 1696, c. 5. all alienations by a bankrupt, within 60 days before his bankruptcy, to one creditor in preference to another, are reducible, at the instance even of such co-creditors as had not used the least step of diligence. A bankrupt is there described by the following characters; diligence used against him by horning and caption; and insolvency, joined either with imprisonment, retiring to the sanctuary, absconding, or forcibly defending himself from diligence. It is sufficient that a caption is raised against the debtor, though it be not executed, provided he has retired to shun it. And by the late bankrupt statute 23 Geo. III. it is declared, that in all actions and questions arising upon the construction and effect of the act 1696; when a debtor is out of Scotland, or not liable to be imprisoned by reason of privilege or personal protection, a charge of horning executed against him, together with either an arrestment of any of his personal effects not loosed or discharged within fifteen days, or a poinding executed of any of his moveables, or a decree of adjudication of any part of his heritable estate, or sequestration by the act of a proper court, of all or any part of his estate or effects, heritable or moveable, for payment of debt, shall, when joined with insolvency, be held as sufficient proof of notour bankruptcy; and from and after the last step of such diligence, the said debtor, if insolvent, shall be held bankrupt. It is provided (by said act 1696), that all heritable bonds or rights on which seisin may follow, shall be reckoned, in a question with the granter's other creditors upon this act, to be of the date of the seisin following thereon. But this act was found to relate only to securities for former debts, and not to *nova debita*.

Actions either *rei perseeutoriæ*, or penal.

14. Actions are divided into *rei persecutoriæ*, and *pœnales*. By the first, the pursuer insists barely to recover the subject that is his, or the debt due to him: and this includes the damage sustained; for one is as truly a sufferer in this patrimonial interest by that damage, as by the loss of the subject itself. In penal actions, which always arise *ex delicto*, something is also demanded by way of penalty.

Spuilzies.

15. Actions of spuilzie, ejection, and intrusion, are penal. An action of spuilzie is competent to one dispossessed of a moveable subject violently, or without order of law, against the person dispossessing: not only for being restored to the possession of the subject, if extant, or for the value, if it be destroyed, but also for the violent profits, in case the action be brought within three years from the spoliation. Ejection and intrusion are, in heritable subjects, what spuilzie is in moveables. The difference between the two first is, that in ejection, violence is used; whereas the intruder enters into the void possession, without either a title from the proprietor, or the warrant of a judge. The actions arising from all the three are of the same general nature.

Contravention of law-burrows.

16. The action of contravention of law-burrows is also penal. It proceeds on letters of law-burrows, (from *borgh*, a cautioner), which contain a warrant to charge the party complained upon, that he may give security not to hurt the complainer in his person, family, or estate. These letters do not require the previous citation of the party complained upon, because the caution which the law requires is only for doing what is every man's duty; but, before the letters are executed against him, the complainer must make oath that he dreads bodily harm from him. The penalty of contravention is ascertained to a special sum, according to the offender's quality; the half to be applied to the fisk, and the half to the complainer. Contravention is not incurred by the uttering of reproachful words, where they are not accompanied, either with acts of violence, or at least a real injury; and as the action is penal, it is elided by any probable ground of excuse.

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17. Penalties are the consequence of delict, or transgression; and as no heir ought to be accountable for the delict of his ancestor, farther than the injured person has really suffered by it, penal actions die with the delinquent, and are not transmissible against heirs. Yet the action, if it has been commenced and litis-contested in the delinquent's lifetime, may be continued against the heir, though the delinquent should die during the dependence. Some actions are *rei persecutoriæ* on the part of the pursuer, when he insists for simple restitution; which yet may be penal in respect of the defender: e. g. the action on the passive title of vitious intromission, by which the pursuer frequently recovers the debt due to him by the deceased, though it should exceed the value of the goods intermeddled with by the defenders.

Penal actions, whether transmissible against the pursuer.

18. The most celebrated division of actions in our laws is into *petitory*, *possessory*, and *declaratory*. *Petitory* actions are those, where something is demanded from the defender, in consequence of a right of property, or of credit in the pursuer: Thus, actions for restitution of moveables, actions of poinding, of forthcoming, and indeed all personal actions upon contracts, or quasi-contracts, are petitory. *Possessory* actions are those which are founded, either upon possession alone, as spuilzies; or upon possession joined with another title, as removings; and they are competent either for getting into possession, for holding it, or for recovering it; analogous to the interdicts of the Roman law, *quorum bonorum*, *uti possidetis*, and *unde vi*.

Actions petitory, and possessory

Of molestation.

19. An action of molestation is a possessory action, competent to the proprietor of a land estate, against those who disturb his possession. It is chiefly used in questions of commonty, or of controverted marches. Where a declarator of property is conjoined with a process of molestation, the session alone is competent to the action. Actions on brieves of perambulation, have the same tendency with molestations, viz. the settling of marches between conterminous lands.

Of mails and duties.

20. The action of mails and duties is sometimes petitory, and sometimes possessory. In either case, it is directed against the tenants and natural possessors of land estates, for payment to the pursuer of the rents remaining due by them for past crops, and of the full rent for the future. It is competent, not only to a proprietor whose right is perfected by seisin, but to a simple disponee, for a disposition of lands includes a right to the mails and duties; and consequently to an adjudger, for an adjudication is a judicial disposition. In the petitory action, the pursuer, since he founds upon the right, not possession, must make the proprietor, from whom the tenants derive their right, party to the suit; and he must support his claim by titles of property or diligences, preferable to those in the person

Petitory.

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Possessory.

of his competitor. In the possessory, the pursuer who libels that, he his ancestors, or authors, have been seven years in possession, and that therefore he has the benefit of a possessory judgment, need produce no other title than a seisin, which is a title sufficient to make the possession of heritage lawful; and it is enough, if he calls the natural possessors, though he should neglect the proprietor. A possessory judgment founded on seven years possession, in consequence either of a seisin or a tack, has this effect, that though one should claim under a title preferable to that of the possessor, he cannot compete with him in the possession, till in a formal process of reduction he shall obtain the possessor's title declared void.

Possessory judgment.

Declaratory action.

21. A *declaratory* action is that, in which some right is craved to be declared in favour of the pursuer, but nothing sought to be paid or performed by the defender, such as declarators of marriage, of irritancy, of expiry of the legal reversion, &c. Under this class may be also comprehended rescissory actions, which without any personal conclusion against the defender, tend simply to set aside the rights or writings libelled, in consequence of which a contrary right or immunity arises to the pursuer. Decrees upon actions that are properly declaratory confer no new right; they only declare what was the pursuer's right before, and so have a retrospect to the period at which that right first commenced. Declarators, because they have no personal conclusion against the defender, may be pursued against an apparent heir without a previous charge given him to enter to his ancestor; unless where special circumstances require a charge.

Action for proving the tenor.

22. An action for proving the tenor, whereby a writing, which is destroyed or amissing, is endeavoured to be revived, is in effect declaratory. In obligations that are extinguishable barely by the debtor's retiring, or cancelling them, the pursuer, before a proof of the tenor is admitted, must condescend on such a *casus amissionis*, or accident by which the writing was destroyed, as shows it was lost when in the creditor's possession; otherwise bonds that have been cancelled by the debtor on payment, might be reared up as still subsisting against him: But in writings which require contrary deeds to extinguish their effect, as assignations, dispositions, charters, &c. it is sufficient to libel that they were lost, even *casu fortuito*.

Adminicles in writing.

23. Regularly no deed can be revived by this action, without some adminicle in writing, referring to that which is libelled: for no written obligation ought to be raised up barely on the testimony of witnesses. If these adminicles afford sufficient conviction that the deed libelled did once exist, the tenor is admitted to be proved by witnesses, who must depose, either that they were present at signing the deed, or that they afterwards saw it duly subscribed. Where the relative writings contain all the substantial clauses of that which is lost, the tenor is sometimes sustained without witnesses. In a writing which is libelled to have contained uncommon clauses, all these must appear by the adminicles. Actions of proving the tenor are, on account of their importance, appropriated to the court of session; and, by the old form, the testimony of the witnesses could not be received but in presence of all the judges.

Multiple-poinding.

24. The action of double or multiple-poinding may be also reckoned *declaratory*. It is competent to a debtor, who is distressed, or threatened with distress, by two or more persons claiming right to the debt, and who therefore brings the several claimaints into the field, in order to debate and settle their several preferences, that so he may pay securely to him whose right shall be found preferable. This action is daily pursued by an arrestee, in the case of several arrestments used in his hands for the same debt; or by tenants in the case of several adjudgers, all of whom claim right to the same rents. In these competitions, any of the competitors may bring an action of multiple-poinding in name of the tenants, or other debtors, without their consent, or even though they should disclaim the process; since the law has introduced it as the proper remedy for getting such competitions determined: And while the subject in controversy continues *in medio*, any third person who conceives he has a right to it, may, though he should not be cited as a defender, produce his titles, as if he were an original party to the suit, and will be admitted for his interest in the competition. By the foresaid bankrupt statute, however, it is competent, in the case of a forthcoming or multiple-poinding raised on an arrestment used within thirty days prior, or four kalender months subsequent, to a bankruptcy, for any other creditor producing his interest, and making his claim, in the process at any time before the expiration of the four months, to be ranked in the same manner as if he had used the form of arrestment.

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Accessory actions.

25. Certain actions may be called *accessory*, because they are merely preparatory or subservient to other actions. Thus, exhibitions *ad deliberandum*, at the instance of an heir against the creditors or custodiers of his ancestor's writings, are intended only to pave the way for future processes. An action of *transference* is also of this sort, whereby an action, during the pendency of which the defender happens to die, is craved to be transferred against his representative, in the same condition in which it stood formerly. Upon the pursuer's death his heir may insist in the cause against the defender, upon producing either a retour or a confirmed testament, according as the subject is heritable or moveable. Transferences being but incidental to other actions, can be pronounced by that inferior judge alone before whom the principal cause depended; but where the representatives of the deceased live in another territory, it is the supreme court must transfer. Obligations may now be registered summarily after the creditor's death; which before was not admitted, without a separate process of registration, to which the granter was necessarily to be made a party.

Transference.

Wakening.

26. A process of *wakening* is likewise accessory. An action is said to sleep, when it lies over not insisted in for a year, in which case its effect is suspended; but even then it may, at any time within the years of prescription, be revived or wakened by a summons, in which the pursuer recites the last step of the process, and concludes that it may be again carried on as if it had not been discontinued. An action that stands upon any of the inner-house rolls cannot sleep; nor an action in which decree is pronounced, because it has got its full completion: Consequently the decree may be extracted after the year, without the necessity of a wakening.

Transumpt.

27. An action of *transumpt* falls under the same class.

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class. It is competent to those who have a partial interest in writings that are not in their own custody, against the possessors thereof, for exhibiting them, that they may be transumed for their behoof. Though the ordinary title in this process be an obligation by the defender to grant transumpts to the pursuer, it is sufficient if the pursuer can show that he has an interest in the writings; but in this case, he must transume them on his own charges. Actions of transumpt may be pursued before any judge-ordinary. After the writings to be transumed are exhibited, full duplicates are made out, collated, and signed, by one of the clerks of court, which are called *transumpts*, and are as effectual as an extract from the register.

Brieves.

28. Actions proceeded anciently upon brieves issuing from the chancery, directed to the justiciary or judge-ordinary, who tried the matter by a jury, upon whose verdict judgment was pronounced: And to this day we retain certain brieves, as of *inquest*, *terce*, *idiotry*, *tutory*, *perambulation*, and perhaps two or three others: But summonses were, immediately upon the institution of the college of justice, introduced in the place of brieves. A summons, when applied to actions pursued before the session, is a writ in the king's name, issuing from his signet upon the pursuer's complaint, authorizing messengers to cite the defender to appear before the court and make his defences, with certification, if he fail to appear, that decree will be pronounced against him in terms of the certification of the summons.

Summonses. *Inducíæ legales.*

29. The days indulged by law to a defender, between his citation and appearance, to prepare for his defence are called *inducíæ legales*. If he is within the kingdom, 21 and 6 days, for the first and second diets of appearance, must be allowed him for that purpose; and if out of it, 60 and 15. Defenders residing in Orkney or Zetland must be cited on 40 days. In certain summonses which are privileged, the *inducíæ* are shortened: Spuilzies and ejections proceed on 15 days; wakenings and transferences, being but incidental, on six; (see the list of privileged summonses, in act of sederunt June 29. 1672). A summons must be executed, i. e. served against the defender so as the last diet of appearance may be within a year after the date of the summons; and it must be called within a year after that diet, otherwise it falls for ever. Offence against the authority of the court, acts of malversation in office by any member of the college of justice, and acts of violence and oppression committed during the dependence of a suit by any of the parties, may be tried without a summons, by a summary complaint.

Concourse of actions.

30. Though the Romans acknowledged a concourse of actions in their proceedings, it is not known in the law of Scotland. Therefore, where an action is in part penal, e. g. a removing, spuilzie, &c. a pursuer who restricts his demand to, and obtains a decree merely for, restitution, cannot thereafter bring a new process for the violent profits. Yet the same fact may be the foundation both of a criminal and civil action, because these two are intended for different purposes; the one for satisfying the public justice, the other for indemnifying the private party: And though the defender should be absolved in the criminal trial, for want of evidence, the party injured may bring an action *ad ci-*

vilem effectum, in which he is entitled to refer the libel to the defender's oath.

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Accumulation of actions.

31. One libel or summons may contain different conclusions on the same ground of right, rescissory, declaratory, petitory, &c. if they be not repugnant to each other: Nay, though different sums be due to one, upon distinct grounds of debt, or even by different debtors, the creditor may insist against them all in the same summons.

Defences.

32. Defences are pleas offered by a defender for eliding an action. They are either *dilatory*, which do not enter into the cause itself, and so can only procure an absolvitor from the *lis pendens*: Or, *peremptory*, which entirely cut off the pursuer's right of action. The first, because they relate to the forms of proceeding, must be offered *in limine judicii*, and all of them at once. But peremptory defences may be proponed at any time before sentence. By an act of sederunt, however (1787), all defences, both dilatory and peremptory, so far as they are known, must be proposed at returning the summons, under a penalty; and the same enactment extends to the cases of suspensions and advocations. The writings to be founded upon by the parties also must be produced: the intention of the court, in framing the act of sederunt, being to accelerate as much as possible the decision of causes.

Litiscontestation.

33. A cause, after the parties had litigated it before the judge, was said by the Romans to be litiscontested. By litiscontestation a judicial contract is understood to be entered into by the litigants, by which the action is perpetuated against heirs, even when it arises *ex delicto*. By our law, litiscontestation is not formed till an act is extracted, admitting the libel or defences to proof.

Sect. II. *Of Probation.* clxxxiv.

Probation,

1. All allegations by parties to a suit, must be supported by proper proof. Probation is either by writing, by the party's own oath, or by witnesses. In the case of allegations, which may be proved by either of the three ways, a proof is said to be admitted *prout de jure*; because, in such case, all the legal methods of probation are competent to the party; if the proof he brings by writing be lame, he may have recourse either to witnesses or to his adversary's oath; but, if he should first take himself to the proof by oath, he cannot thereafter use any other probation (for the reason assigned par. 3.); and, on the contrary, a pursuer who has brought a proof by witnesses, on an extracted act, is not allowed to recur to the oath of the defender.—

prout de jure;

by single combat;

Single combat, as a sort of appeal to Providence, was, by our ancient law, admitted as evidence, in matters both civil and criminal. It was afterwards restricted to the case of such capital crimes where no other proof could be had; some traces of this blind method of trial remained even in the reign of James VI. who, by 1600, c. 12. might authorize duels on weighty occasions.

by writing.

2. As obligations or deeds signed by the party himself, or his ancestors or authors, must be, of all evidence, the least liable to exception; therefore every debt or allegation may be proved by proper evidence in writing. The solemnities essential to probative deeds have been already explained, (N° clxxiv. 3. *et seq.*). Books of account kept by merchants, tradesmen, and other dealers

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in business, though not subscribed, are probative against him who keeps them; and, in case of furnishings by a shopkeeper, such books, if they are regularly kept by him, supported by the testimony of a single witness, afford a *semiplena probatio* in his favour, which becomes full evidence by his own oath in supplement. Notorial instruments and executions by messengers bear full evidence, that the solemnities therein set forth were used, not to be invalidated otherwise than by a proof of falsehood; but they do not prove any other extrinsic facts therein averred, against third parties.

Probation oath of party in reference.

3. Regularly, no person's right can be proved by his own oath, nor taken away by that of his adversary; because these are the bare averments of parties in their own favour. But, where the matter in issue is referred by one of the parties to the oath of the other, such oath, though made in favour of the deponent himself, is decisive of the point; because the reference is a virtual contract between the litigants, by which they are understood to put the issue of the cause upon what shall be deposed: and this contract is so strictly regarded, that the party who refers to the oath of the other cannot afterwards, in a civil action, plead upon any deed against the party deposing, inconsistent with his oath. To obviate the snares that may be laid for perjury, be to whose oath of verity a point is referred, may refuse to depose, till his adversary swear that he can bring no other evidence in proof of his allegation.

4. A defender, though he cannot be compelled to swear to facts in a libel properly criminal; yet may, in trespasses, where the conclusion is limited to a fine, or to damages. In general, an oath of party cannot either hurt or benefit third parties; being, as to them, *res inter alios acta*.

Qualified oaths.

5. An oath upon reference is sometimes qualified by special limitations restricting it. The qualities which are admitted by the judges as part of the oath, are called *intrinsic;* those which the judge rejects or separates from the oath, *extrinsic*. Where the quality makes a part of the allegation which is relevantly referred to oath, it is intrinsic. Thus, because a merchant suing for furnishings after the three years, must, in order to make a relevancy, offer to prove by the defender's oath, not only the delivery of the goods, but that the price is still due; therefore, though the defender should acknowledge upon oath his having received the goods, yet, if he adds, that he paid the price, this last part being a denial that the debt subsists, is intrinsic, since it is truly the point referred to oath. Where the quality does not import an extinction of the debt, but barely a counter-claim, or *mutua petitio*, against the pursuer, it is held as intrinsic, and must be proved *aliunde*. Neither can a defender who in his oath admits the constitution of a debt, get off by adjecting the quality of payment, where the payment ought by its nature to be vouched by written evidence.

Oaths in supplement.

6. Oaths of verity are sometimes referred by the judge to either party, *ex officio;* which, because they are not founded on any implied contract between the litigants, are not finally decisive, but may be traversed on proper evidence afterwards produced. These oaths are commonly put by the judge for supplying a lame or imperfect proof, and are therefore called *oaths in supplement*. (See par. 2.).

Oath of calumny.

7. To prevent groundless allegations, oaths of calumny have been introduced, by which either party may demand his adversary's oath, that he believes the fact contained in his libel or defences to be just and true. As this is an oath, not of verity, but only of opinion, the party who puts it to his adversary does not renounce other probation; and therefore no party is bound to give an oath of calumny, on recent facts of his own, for such oath is really an oath of verity. These oaths have not been so frequent since the act of sederunt, Feb. 1. 1715, whereby any party, against whom a fact shall be alleged, is obliged, without making oath, to confess or deny it; and, in case of calumnious denial, is subjected to the expence that the other party has thereby incurred.

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8. In all oaths, whether of verity or calumny, the citation carries, or at least implies, a certification, that if the party does not appear at the day assigned for deposing, he shall be held *pro confesso;* from a presumption of his consciousness, that the fact upon which he declines to swear makes against him; but no party can be held *pro confesso*, if he be in the kingdom, without a previous personal citation used against him. Though an oath which resolves into a *non memini* cannot be said to prove any point; yet where one so deposes upon a recent fact, to which he himself was privy, his oath is considered as a dissembling of the truth, and he is held *pro confesso*, as if he had refused to swear.

A *non memini* oath.

Oath *in litem*.

9. An oath *in litem* is that which the judge refers to a pursuer, for ascertaining either the quantity or the value of goods which have been taken from him by the defender without order of law, or the extent of his damages. An oath *in litem*, as it is the affirmation of a party in his own behalf, is only allowed where there is proof that the other party has been engaged in some illegal act, or where the public policy has made it necessary, (see N° clxxiii. 11.). This oath, as to the quantities, is not admitted, where there is a concurring testimony of witnesses brought in proof of it. When it is put as to the value of goods, it is only an oath of credulity; and therefore it has always been subject to the modification of the court.

Probation by witnesses, in what cases rejected.

10. The law of Scotland rejects the testimony of witnesses, (1.) In payment of any sum above 100l. Scots, all which must be proved either *scripto vel juramento*. (2.) In all gratuitous promises, though for the smallest trifle. (3.) In all contracts, where writing is either essential to their constitution (see N° clxxiv. 2.), or where it is usually adhibited, as to the borrowing of money. And it is a general rule, subject to the restriction mentioned in the next part, that no debt or right, once constituted by writing, can be taken away by witnesses.

In what admitted.

11. On the other part, probation by witnesses is admitted to the extent of 100l. Scots, in payments, nuncupative legacies, and verbal agreements which contain mutual obligations. And it is received to the highest extent, (1.) In all bargains which have known engagements naturally arising from them concerning moveable goods. (2.) In facts performed in satisfaction even of a written obligation, where such obligation binds the party precisely to the performance of them. (3.) In facts which with difficulty admit of a proof by writing, even though the effect of such proof should be the extinction of a written obligation, especially if the facts import fraud or violence; thus a bond is reducible

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cible *ex dolo*, on a proof by witnesses. Lastly, all intromission by a creditor with the rents of his debtor's estate payable in grain, may be proved by witnesses: and even intromission with the silver rent, where the creditor has entered into the total possession of the debtor's land.

What persons rejected as witnesses.

12. Nor person, whose near relation to another bars him from being a judge in his cause, can be admitted as a witness for him: but he may against him, except a wife or child, who cannot be compelled to give testimony against the husband or parent, *ob reverentiam personæ et metum perjurii*. Though the witness whose propinquity to one of the parties is objected to, be as nearly related to the other, the objection stands good.

13. The testimony of infamous persons is rejected, i. e. persons who have been guilty of crimes that law declares to infer infamy, or who have been declared infamous by the sentence of a judge; but *infamia facti* does not disqualify a witness. Pupils are inhabile witnesses; being, in the judgment of law, incapable of the impressions of an oath. And in general witnesses otherwise exceptionable may, where there is a penury of witnesses arising from the nature or circumstances of the fact, be received *cum nota;* that is, their testimony, though not quite free from suspicion, is to be conjoined with the other evidence, and to have such weight given it as the judge shall think it deserves.

Purgation of witnesses.

14. All witnesses, before they are examined in the cause, are purged of partial counsel; that is, they must declare that they have no interest in the suit, nor have given advice how to conduct it; that they have got neither bribe nor promise, nor have been instructed how to depose; and that they bear no enmity to either of the parties. These, because they are the points put to a witness before his making oath, are called *initiala testimonii*. Where a party can bring present proof of witness's partial counsel in any of the above particulars, he ought to offer it before the witness be sworn; but, because such objection, if it cannot be instantly verified, will be no bar to the examination, law allows the party in that case to protest for *reprobator*, before the witness is examined; i. e. that he may be afterwards allowed to bring evidence of his enmity, or other inability. Reprobator is competent even after sentence, where protestion is duly entered; but in that case, the party insisting must consign 100l. Scots, which he forfeits if he succumb. This action must have the concurrence of the king's advocate, because the conclusion of it imports perjury; and for this reason, the witness must be made a party to it.

Diligence against witnesses.

15. The interlocutory sentence or warrant, by which parties are authorized to bring their proof, is either by way of act, or of incident diligence. In an act, the lord ordinary who pronounces it is no longer judge in the process; but in an incident diligence, which is commonly granted upon special points, that do not exhaust the cause, the lord ordinary continues judge. If a witness does not appear at the day fixed by the warrant of citation, a second warrant is granted of the nature of a caption, containing a command to messengers to apprehend and bring him before the court. Where the party to whom a proof is granted, brings

Circumduction.

none within the term allowed by the warrant, an interlocutor is pronounced, circumducing the term, and precluding him from bringing evidence thereafter. Where evidence is brought, if it be upon an act, the lord ordinary on the acts, after the term for providing is elapsed, declares the proof concluded; and thereupon a state of the case is prepared by the ordinary on concluded causes, which must be judged by the whole lords; but if the proof be taken upon an incident diligence, the import of it may be determined by the lord ordinary in the cause.

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Presumptions.

16. Where facts do not admit a direct proof, presumptions are received as evidence which, in many cases, make as convincing a proof as the direct. Presumptions are consequences deduced from facts known or proved, which infer the certainty, or at least a strong probability, of another fact to be proved. This kind of probation is therefore called *artificial*, because it requires a reasoning to infer the truth of the point in question, from the facts that already appear in proof. Presumptions are either, 1. *juris et de jure;* 2. *juris;* or, 3. *hominis* or *judicis*. The first sort obtains, where statute or custom establishes the truth of any point upon a presumption; and it is so strong that it rejects all proof that may be brought to elide it in special cases. Thus, the testimony of a witness, who forwardly offers himself without being cited, is, from a presumption of his partiality, rejected, let his character be ever so fair; and thus also, a minor, because he is by law presumed incapable of conducting his own affairs, is upon that presumption disabled from acting without the consent of his curators, though he should be known to behave with the greatest prudence. Many such presumptions are fixed by statute.

17. *Præsumptiones juris* are those which our law books or decisions have established, without founding any particular consequences upon them, or statuting *super præsumpto*. Most of this kind are not proper presumptions inferred from positive facts, but are founded merely on the want of a contrary proof: thus, the legal presumptions for freedom, for life, for innocence, &c. are in effect so many negative propositions, that servitude, death, and guilt, are not to be presumed, without evidence brought by him who makes the allegation. All of them, whether they be of this sort, or proper presumptions, as they are only conjectures formed from what commonly happens, may be elided, not only by direct evidence, but by other conjectures, affording a stronger degree of probability to the contrary. *Præsumptiones hominis* or *judicis*, are those which arise daily from the circumstances of particular cases; the strength of which is to be weighed by the judge.

Fictio Juris.

18. A *fictio juris* differs from a presumption. Things are presumed, which are likely to be true; but a fiction of law assumes for truth what is either certainly false, or at least is as probably false as true. Thus an heir is feigned or considered in law as the same person with his ancestor. Fictions of law, must, in their effects, be always limited to the special purposes of equity for which they were introduced; see an example, N° clxxxiii. 3.

Sect. III. *Of Sentences and their Executions.* clxxv.

1. Property would be most uncertain, if debateable points might, after receiving a definitive judgment, be brought again in question, at the pleasure of either of the

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the parties: every state has therefore fixed the character of final to certain sentences or decrees, which in the Roman law are called *res judicatæ*, and which exclude all review or rehearing.

Res judicatæ.

Decrees in foro.

2. Decrees of the court of session, are either *in foro contradictoria*, where both parties have litigated the cause, or in absence of the defender. Decrees of the session *in foro* cannot, in the general case, be again brought under the review of the court, either on points which the parties neglected to plead before sentence (which we call *competent* and *omitted*), or upon points pleaded and found insufficient (proponed and repelled). But decrees, though *in foro*, are reversible by the court, where either they labour under essential nullities; e. g. where they are *ultra petita*, or not conformable to their grounds and warrants, or founded on an error in calcul, &c.; or where the party against whom the decree is obtained has thereafter recovered evidence sufficient to overturn it, of which he knew not before.

Two consecutive interlocutors are final.

3. As parties might formerly reclaim against the sentences of the session, at any time before extracting the decree, no judgment was final till extract; but now, a sentence of the inner house, either not reclaimed against within six sederunt days after its date, or adhered to upon a reclaiming bill, though it cannot receive execution till extract, makes the judgment final as to the court of session. And by an order of the house of lords, March 24. 1725, no appeal is to be received by them from sentences of the session after five years from extracting the sentence; unless the person entitled to such appeal be minor, clothed with a husband, *non compos mentis*, imprisoned, or out of the kingdom. Sentences pronounced by the lord ordinary have the same effect, if not reclaimed against, as if they were pronounced in presence; and all petitions against the interlocutor of an ordinary must be preferred within eight sederunt days after signing such interlocutor.

Time limited for appeals.

Decrees in absence.

4. Decrees, in absence of the defender, have not the force of *res judicatæ* as to him; for where the defender does not appear, he cannot be said to have subjected himself by the judicial contract which is implied in litiscontestation: a party therefore may be restored against these, upon paying to the other his costs in recovering them. The sentences of inferior courts may be reviewed by the court of session,—before decree, by advocation,—and after decree, by suspension or reduction; which two last are also the methods of calling in question such decrees of the session itself, as can again be brought under the review of the court.

Decrees reviewed either by reduction or suspension.

5. Reduction is the proper remedy, either where the decree has already received full execution by payment, or where it decrees nothing to be paid or performed, but simply declares a right in favour of the pursuer. Suspension is that form of law by which the effect of a sentence condemnatory, that has not yet received execution, is stayed or postponed till the cause be again considered. The first step towards suspension is a bill preferred to the lord ordinary on the bills. This bill, when the desire of it is granted, is a warrant for issuing letters of suspension which pass the signet; but if the presenter of the bill shall not, within 12 days after passing it, expedite the letters, execution may by act of sederunt 1677 proceed on the sentence. In practice, however, it is usual for the charger to put up a protestation in the minute book for production of the suspension, which may be expedited at any time before this is done; and if the suspender shall allow the protestation to be extracted, the sist falls. Suspensions of decrees *in foro* cannot pass, but by the whole lords in time of session, and by three in vacation time; but other decrees may be suspended by any one of the judges. By the act of sederunt (1787), in order to remedy the abuse of presenting a multiplicity of bills of suspension of the decrees of inferior judges in small cases which have passed in absence, it is declared, that all bills of suspension of decrees by inferior judges, in absence of the defenders, in causes under 12l. sterling value, shall be refused and remitted to the inferior judge, if competent; the suspender, however, before being heard in the inferior court, reimbursing the charger of the expences incurred by him previous to the remit.

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Suspenders must give caution.

6. As suspension has the effect of staying the execution of the creditor's legal diligence, it cannot, in the general case, pass without caution given by the suspender to pay the debt, in the event it shall be found due. Where the suspender cannot, from his low or suspected circumstances, procure unquestionable security, the lords admit juratory caution, i. e. such as the suspender swears is the best he can offer; but the reasons of suspension are, in that case, to be considered with particular accuracy at passing the bill. Decrees in favour of the clergy, of universities, hospitals, or parish-schoolmasters, for their stipends, rents, or salaries, cannot be suspended, but upon production of discharges, or on consignation of the sums charged for. A charger, who thinks himself secure without a cautioner, and wants despatch, may, where a suspension of his diligence is sought, apply to the court to get the reasons of suspension summarily discussed on the bill.

Suspension, when competent.

7. Though he, in whose favour the decree suspended is pronounced, be always called the charger, yet a decree may be suspended before a charge be given on it. Nay, suspension is competent even where there is no decree, for putting a stop to any illegal act whatsoever: thus, a building, or the exercise of a power which one assumes unwarrantably, is a proper subject of suspension. Letters of suspension are considered merely as a prohibitory diligence; so that the suspender, if he would turn provoker, must bring an action of reduction. If, upon discussing the letters of suspension, the reasons shall be sustained, a decree is pronounced, suspending the letters of diligence on which the charge was given *simpliciter*; which is called a *decree of suspension*, and takes off the effect of the decree suspended. If the reasons of suspension be repelled, the court find the letters of diligence orderly proceeded, i. e. regularly carried on: and they ordain them to be put to farther execution.

Extraction of decrees.

8. Decrees are carried into execution, by diligence, either against the person or against the estate of the debtor. The first step of personal execution is by letters of horning which pass by a warrant of the court of session, on the decrees of magistrates of boroughs, sheriffs, admirals, and commissaries. If the debtor does not obey the will of the letters of horning within the days of the charge, the charger, after denouncing him

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him rebel, and registering the horning, may apply for letters of caption, which contain a command, not only to messengers, but to magistrates, to apprehend and imprison the debtor. All messengers and magistrates, who refuse their assistance in executing the caption, are liable *subsidiariè* for the debt; and such subsidiary action is supported by the execution of the mesenger, employed by the creditor, expressing that they were charged to concur, and would not. Letters of caption contain an express warrant to the messenger, in case he cannot get access, to break open all doors and other lock-fast places.

What persons secured against caption.

9. Law secures peers, married women, and pupils, against personal execution by caption upon civil debts. Such commoners also as are elected to serve in parliament, are secured against personal execution by the privilege of parliament. No caption can be executed against a debtor within the precincts of the king's palace of Holyroodhouse; but this privilege of sanctuary afforded no security to criminals, as that did which was by the canon law conferred on churches and religious houses. Where the personal presence of a debtor, under caption, is necessary in any of our supreme courts, the judges are empowered to grant him a protection, for such time as may be sufficient for his coming and going, not exceeding a month. Protection from diligence is also granted by the court of session under the bankrupt statute, where it is applied for, with concurrence of the trustee, or a certain number of the creditors, as the case may require.

Prisoners must be closely confined

10. After a debtor is imprisoned, he ought not to be indulged the benefit of the air, not even under a guard; for creditors have an interest, that their debtor be kept under close confinement, that, by the *squalor carceris*, they may be brought to pay their debt: and any magistrate or jailor, who shall suffer the prisoner to go abroad, without a proper attestation, upon oath, of the dangernus state of his health, is liable *subsidiariè* for the debt. Magistrates are in like manner liable if they shall suffer a prisoner to escape through the insufficiency of their prison: but if he shall escape under night, by the use of instruments, or by open force, or by any other accident which cannot be imputed to the magistrates or jailor, they are not chargeable with the debt; provided they shall have immediately after his escape, made all possible search for him. A case lately occurred where a messenger having apprehended a person for a debt, upon letters of caption, delivered him over to the provost of the burgh, and took a receipt for him. The provost allowed him to remain at the inn all night, and afterwards allowed him what is called *open goal*, by which he had access to the court-house, under the same roof with the prison, where he transacted business. As the person at whose instance he was apprehended upon the caption, considered that the magistrates had not kept the debtor in prison as commanded by the letters, he brought an action against them for the debt, although the debtor had not so much as attempted to make his escape. It was contended by the magistrates, that they were not liable, having only followed the usual practice of the burgh: but the court of session, considering the magistrates as principal keepers of the prison, and as such having no discretionary power, were of opinion, that the debtor had never been imprisoned in the eye of law, and therefnre found the magistrates liable; and their judgement was affirmed upon an appeal. Regularly, no prisoner for debt upon letters of caption, though he should have made payment, could be released without letters of suspension, containing a charge to the jailor to set him at liberty; because the creditor's discharge could not take off the penalty incurred by the debtor for contempt of the king's authority: but to save unnecessary expence to debtors in small debts, jailors are empnwered to let go prisoners where the debt does not exceed 200 merks Scots, upon production of a discharge in which the creditor consents to his release.

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Form of liberating a prisoner.

11. Our law, from a consideration of compassion, allows insolvent debtors to apply for a release from prison upon a *cessio bonorum*, i. e. upon their making over to the creditors all their estate real and personal. This must be insisted for by way of action, to which all the creditors of the prisoner ought to be made parties. The prisoner must, in this action, which is cognizable only by the court of session, exhibit a particular inventory of his estate, and make oath that he has no other estate than is therein contained, and that he has made no conveyance of any part of it, since his imprisonment, to the hurt of his creditors. He must also make oath, whether he has granted any disposition of his effects before his imprisonment, and condescend on the persons to whom, and on the cause of granting it; that the court may judge, whether, by any collusive practice, he has forfeited his claim to liberty.

Liberation upon a *cessio bonorum*;

12. A fraudulent bankrupt is not allowed this privilege; nor a criminal who is liable in any assythment or indemnification to the party injured or his executors, though the crime itself should be extinguished by a pardon. A disposition granted on a *cessio bonorum* is merely in farther security to the creditors, not in satisfaction or *in solutum* of the debts. If, therefore, the debtor should acquire any estate after his release, such estate may be attached by his creditors, as if there had been no *cessio*, except in so far as is necessary for his subsistence. Debtors, who are set free on a *cessio bonorum*, are obliged to wear a habit proper to dyvours or bankrupts. The lords are prohibited to dispense with this mark of ignominy, unless, in the summons and process of *cessio*, it be libelled, sustained, and proved, that the bankruptcy proceeds from misfortune. And bankrupts are condemned to submit to the habit, even where no suspicion of fraud lies against them, if they have been dealers in an illicit trade.

not competent to delinquents.

Dyvours habit.

13. Where a prisoner for debt declares upon oath before the magistrates of the jurisdiction, that he has, not wherewith to maintain himself, the magistrate may set him at liberty, if the creditor, in consequence of whose diligence he was imprisoned, does not aliment him within ten days after intimation made for that purpose. But the magistrate may, in such case, detain him in prison, if the creditor chooses to bear the burden of the aliment rather than release him. The statute authorizing this release, which is usually called the *act of grace*, is limited to the case of prisoners for civil debts.

Act of grace.

14. Decrees are executed against the moveable estate of the debtor by arrestment nr poinding; and against his heritable estate, by inhibition, nr adjudication. If one be condemned, in a removing or other process, to quit the possession of lands, and refuses, notwithstanding

Execution against the debtor's estate.

Law of Scotland. a charge, letters of ejection are granted of course, ordaining the sheriff to eject him, and to enter the obtainer of the decree into possession. Where one opposes by violence the execution of a decree, or of any lawful diligence, which the civil magistrate is not able by himself and his officers to make good, the execution is enforced *manu militari*.

Decrees arbitral. 15. A decree arbitral, which is a sentence proceeding on a submission to arbiters, has some affinity with a judicial sentence, though in most respects the two differ.

Submission. A submission is a contract entered into by two or more parties who have disputable rights or claims, whereby they refer their differences to the final determination of an arbiter or arbiters, and oblige themselves to acquiesce in what shall be decided. Where the day within which the arbiters are to decide, is left blank in the submission, practice has limited the arbiters power of deciding to a year. As this has proceeded from the ordinary words of style, empowering the arbiters to determine betwixt and the day of next to come; therefore, where a submission is indefinite, without specifying any time, like all other contracts or obligations, it subsists for 40 years. Submissions, like mandates, expire by the death of any of the parties submitters before sentence. As arbiters are not vested with jurisdiction, they cannot compel witnesses to make oath before them, or havers of writings to exhibit them; but this defect is supplied by the court of session, who, at the suit of the arbiters, or of either of the parties, will grant warrant for citing witnesses, or for the exhibition of writing. For the same reason the power of arbiters is barely to decide; the execution of the decree belongs to the judge. Where the submitters consent to the registration of the decree arbitral, performance may be enforced by summary diligence.

Powers of arbiters. 16. The power of arbiters is wholly derived from the consent of parties. Hence where their powers are limited to a certain day, they cannot pronounce sentence after that day. Nor can they subject parties to a penalty higher than that which they have agreed to in the submission. And where a submission is limited to special claims, sentence pronounced on subjects not specified in the submission is null, as being *ultra vires compromissi*.

Decrees arbitral, how far reducible. 17. But, on the other hand, as submissions are designed for a most favourable purpose, the amicable composing of differences, the powers thereby conferred on arbiters receive an ample interpretation. Decrees arbitral are not reducible upon any ground, except corruption, bribery, or falsehood.

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Sect. IV. *Of Crimes.*

Crimes. 1. The word *crime*, it its most general sense, includes every breach either of the law of God or of our country; in a more restricted meaning, it signifies such transgressions of law as are punishable by courts of justice.

public, and, Crimes were, by the Roman law, divided into public and private. Public crimes were those that were expressly declared such by some law or constitution, and which, on account of their more atrocious nature and hurtful consequences, might be prosecuted by any member of the community.

private. Private crimes could be pursued only by the party injured, and were generally punished by a pecuniary fine to be applied to his use. By the law of Scotland, no private party, except the person injured, or his next of kin, can accuse criminally: but the king's advocate, who in this question represents the community, has a right to prosecute all crimes *in vindictam publicam*, though the party injured should refuse to concur. Smaller offences, as petty riots, injuries, &c. which do not demand the public vengeance, pass generally by the appellation of *delicts*, and are punished either by fine or imprisonment. Law of Scotland.

What essential to crimes. 2. The essence of a crime is, that there be an intention in the actor to commit; for an action in which the will of the agent has no part is not a proper object either of rewards or punishments; hence arises the rule, *crimen dolo contrahitur*. Simple negligence does not therefore constitute a proper crime. Yet where it is extremely gross, it may be punished arbitrarily. Far less can we reckon in the number of crimes, those committed by an idiot or furious person: but lesser degrees of fatuity, which only darken reason, will not afford a total defence, though they may save from the *pœna ordinaria*. Actions committed in drunkenness are not to be considered as involuntary, seeing the drunkenness itself, which was the first cause of the action, is both voluntary and criminal.

3. On the same principle, such as are in a state of infancy, or in the confines of it, are incapable of a criminal action, dole not being incident to that age; but the precise age at which a person becomes capable of dole, being fixed neither by nature nor by statute, is by our practice to be gathered by the judge, as he best can, from the understanding and manners of the person accused. Where the guilt of a crime arises chiefly from statute, the actor, if he is under puberty, can hardly be found guilty; but, where nature itself points out its deformity, he may, if he is *proximus pubertati*, be more easily presumed capable of committing it: yet, even in that case, he will not be punished *pœna ordinaria*.

Accessories, or art and part. 4. One may be guilty of a crime, not only by perpetrating it himself, but being accessory to a crime committed by another; which last is by civilians styled *ope et consilio*, and, in our law phrase, *art and part*. A person may be guilty, art and part, either by giving advice or counsel to commit the crime; or, 2. By giving warrant or mandate to commit it; or, 3. By actually assisting the criminal in the execution. It is generally agreed by doctors, that, in the more atrocious crimes, the adviser is equally punishable with the criminal; and that, in the slighter, the circumstances arising from the adviser's lesser age, the jocular or careless manner of giving advice, &c. may be received as pleas for softening the punishment. One who gives mandate to commit a crime, as he is the first spring of action, seems more guilty than the person employed as the instrument in executing it; yet the actor cannot excuse himself under the pretence of orders which he ought not to have obeyed.

5. Assistance may be given to the committer of a crime, not only in the actual execution, but previous to it, by furnishing him, intentionally, with poison, arms, or the other means of perpetrating it. That sort of assistance which is not given till after the criminal act, and which is commonly called *abetting*, though it be of itself criminal, does not infer art and part of the principal

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principal crime; as if one should favour the escape of a criminal, knowing him to be such, or conceal him from justice.

Punishment of crimes.

6. Those crimes that are in their consequences most hurtful to society, are punished capitally, or by death; others escape with a lesser punishment, sometimes fixed by statute, and sometimes arbitrary, i. e. left to the discretion of the judge, who may exercise his jurisdiction, either by fine, imprisonment, or a corporal punishment. Where the punishment is left, by law, to the discretion of the judge, he can in no case extend it to death. The single escheat of the criminal falls on conviction, in all capital trials, though the sentence should not express it.

Blasphemy.

7. Certain crimes are committed more immediately against God himself; others, against the state; and a third kind, against particular persons. The chief crime in the first class, cognizable by temporal courts, is *blasphemy*, under which may be included *atheism*. This crime consists in the denying or vilifying the Deity by speech or writing. All who curse God or any of the persons of the blessed Trinity, are to suffer death, even for a single act; and those who deny him, if they persist in their denial. The denial of a Providence, or of the authority of the holy Scriptures, is punishable capitally for the third offence.

8. No prosecution can now be carried on for witchcraft or conjuration. But all who undertake from their skill in any occult science, to *tell fortunes, or discover stolen goods*, are to suffer imprisonment for a year, stand in the pillory four times in that year, and find surety for their future good behaviour.

Treason.

9. Some crimes against the state are levelled directly against the supreme power, and strike at the constitution itself: others discover such a contempt of law, as tends to baffle authority, or slacken the reins of government. *Treason, crimen majestatis*, is that crime which is aimed against the majesty of the state; and can be committed only by those who are subjects of that state either by birth or residence. Soon after the union of the two kingdoms in 1707, the laws of treason, then in force in England, were made ours by 7 Ann. c. 21. both with regard to the facts constituting that crime, to the forms of trial, the corruption of blood, and all the penalties and forfeitures consequent on it.

10. It is high treason, by the law of England, to imagine the death of the king, queen consort, or of the heir apparent to the crown; to levy war against the king, or adhere to his enemies; to counterfeit the king's coin, or his great or privy seal; to kill the chancellor, treasurer, or any of the 12 judges of England, while they are doing their offices: which last article is by the forenamed act 7 Ann. applied to Scotland, in the case of slaying any judge of the session or of justiciary sitting in judgment. Those who wash, clip, or lighten, the proper money of the realm; who advisedly affirm by writing or printing, that the pretender has any right to the crown, that the king and parliament cannot limit the succession to it, or who hold correspondence with the pretender, or any person employed by him, are also guilty of treason.

Pains of treason.

11. The forms of proceedings in the trial of treason, whether against peers or commoners, are set forth in a small treatise, published by order of the house of lords in 1709, subjoined to a collection of statutes concerning treason. By the conviction upon this trial, the whole estate of the traitor forfeits to the crown. His blood is also corrupted, so that, on the death of an ancestor, he cannot inherit; and the estate which he cannot take, falls to the immediate superior as escheat, *ob defectum heredis*, without distinguishing whether the lands hold of the crown, or of a subject. No attainder for treason shall, after the death of the pretender and all his sons, hurt the right of any person, other than that of the offender, during his natural life; the rights of creditors and other third parties, in the case of forfeiture on treason, must be determined by the law of England.

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Misprision of treason.

12. *Misprision of treason*, from *meprendre*, is the overlooking or concealing of treason. It is inferred by one's bare knowledge of the crime, and not discovering it to a magistrate or other person entitled by his office to take examination; though he should not in the least degree assent to it. The foresaid act 7 Ann. makes the English law of misprision ours. Its punishment is, by the law of England, perpetual imprisonment, together with the forfeiture of the offender's moveables, and of the profits of his heritable estate, during his life; that is, in the style of our law, his single and liferent escheat.

Sedition.

13. The crime of *sedition* consists in the raising commotions or disturbances in the state. It is either verbal or real. Verbal sedition, or leasing-making, is inferred from the uttering of words tending to create discord between the king and his people. It is punished either by imprisonment, fine, or banishment, at the discretion of the judge. Real sedition is generally committed by convocating together any considerable number of people, without lawful authority, under the pretence of redressing some public grievance, to the disturbing of the public peace. Those who are convicted of this crime are punished by the confiscation of their goods; and their lives are at the king's will. If any persons, to the number of 12, shall assemble, and being required by a magistrate or constable to disperse, shall nevertheless continue together for an hour after such command, the persons disobeying shall suffer death and confiscation of moveables.

Corruption in judges.

14. Judges, who, wilfully or through corruption, use their authority as a cover to injustice or oppression, are punished with the loss of honour, fame and dignity. Under this head may be classed *theftbote* (from *bote*, "compensation"), which is the taking a consideration in money or goods from a thief to exempt him from punishment, or connive at his escape from justice. A sheriff or other judge, guilty of this crime, forfeits his life and goods. And even a private person, who takes theftbote, suffers as the principal thief. The buying of disputed claims, concerning which there is a pending process, by any judge or member either of the session or of an inferior court, is punished by the loss of the delinquent's office, and all the privileges thereto belonging.

Deforcement.

15. Deforcement is the opposition given, or resistance made, to messengers or other officers, while they are employed in executing the law. The court of session is competent to this crime. It is punishable with the confiscation of moveables, the one half to the king, and the other to the creditor at whose suit the diligence was

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was used. Armed persons, to the number of three or more, assisting in the illegal running, landing, or exporting of prohibited or uncustomed goods, or any who shall resist, wound, or maim any officer of the revenue, in the execution of his office, are punishable with death and the confiscation of moveables.

Breach of arrestment.

16. *Breach of arrestment* (see N° lxxviii. 5.) is a crime of the same nature with deforcement, as it imports a contempt of the law and of our judges. It subjects to an arbitrary corporal punishment, and the escheat of moveables; with a preference to the creditor for his debt, and for such farther sum as shall be modified to him by the judge. Under this head of crimes against good government and police, may be reckoned the *forestalling of markets;* that is, the buying of goods intended for a public market, before they are carried there; which for the third criminal act infers the escheat of moveables; as also slaying salmon in forbidden time, destroying plough graith in time of tillage, slaying or houghing horses or cows in time of harvest, and destroying or spoiling growing timber; as to the punishment of which, see statutes 1503, c. 72. —1587, c. 82. and 1689, c. 16.—1 Geo. I. St. 2. c. 48.

Forestalling, &c.

Murder.

17. Crimes against particular persons may be directed either against life, limb, liberty, chastity, goods, or reputation. *Murder* is the wilful taking away of a person's life, without a necessary cause. Our law makes no distinction betwixt premeditated and sudden homicide: both are punished capitally. Casual homicide, where the actor is in some degree blameable; and homicide in self-defence, where the just bounds of defence have been exceeded, are punished arbitrarily: but the slaughter of night thieves, housebreakers, assistances in masterful depredations, or rebels denounced for capital crimes, may be committed with impunity. The crime of *demembration*, or the cutting off a member, is joined with that of murder: but in practice its punishment has been restricted to the escheat of moveables, and an assythment or indemnification to the party. *Mutilation*, or the disabling of a member, is punished at the discretion of the judge.

Self-murder.

18. *Self-murder* is as highly criminal as the killing our neighbour; and for this reason, our law has, contrary to the rule, *crimina morte extinguuntur*, allowed a proof of the crime, after the offender's death, that his single escheat might fall to the king or his donatory. To this end, an action must be brought, not before the justiciary, but the session, because it is only intended *ad civilem effectum*, for proving and declaring the self-murder; and the next of kin to the deceased must be made a party to it.

Parricide.

19. The punishment of parricide, or of the murder of a parent, is not confined, by our law, to the criminal himself. All his posterity in the right line are declared incapable of inheriting; and the succession devolves on the next collateral heir. Even the cursing or beating of a parent infers death, if the person guilty be above 16 years; and an arbitrary punishment, if he be under it. A presumptive or statutory murder is constituted by 1690, c. 21. by which any woman who shall conceal her pregnancy, during its whole course, and shall not call for, or make use of, help in the birth, is to be reputed the murderer, if the child be dead, or amissing. This act was intended to discourage the unnatural practice of women making away with their children begotten in fornication, to avoid church censures.

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Duelling.

20. *Duelling*, is the crime of fighting in single combat, on previous challenges given and received. Fighting in a duel, without license from the king, is punishable by death; and whatever person, principal or second, shall give a challenge to fight a duel, or shall accept a challenge, or otherwise engage therein, is punished by banishment and escheat of moveables, though no actual fighting should ensue.

Haimsucken.

21. *Haimsucken* (from *haim* "home," and *socken* "to seek or pursue") is the assaulting or beating of a person in his own house. The punishment of this crime is nowhere defined, except in the books of the Majesty, which makes it the same as that of a rape; and it is, like rape, capital by our practice. The assault must be made in the proper house of the person assaulted, where he lies and rises daily and nightly; so that neither a public house, nor even a private, where one is only transiently, falls within the law.

Battery.

22. Any party to a law suit, who shall slay, wound, or otherwise invade his adversary, at any period of time between executing the summons and the complete execution of the decree, or shall be accessory to such invasion, shall lose his cause. The sentence pronounced on this trial, against him who has committed the battery, is not subject to reduction, either on the head of minority, or on any other ground whatever: and if the person prosecuted for this crime shall be denounced for not appearing, his liferent, as well as single escheat, falls upon the denunciation.

Wrongous imprisonment.

23. The crime of *wrongous imprisonment* is inferred, by granting warrants of commitment in order to trial, proceeding on informations not subscribed, or without expressing the cause of commitment; by receiving or detaining prisoners on such warrants; by refusing to a prisoner a copy of the warrant of commitment; by detaining him in close confinement, above eight days after his commitment; by not releasing him on bail, where the crime is bailable; and by transporting persons out of the kingdom, without either their own consent, or a lawful sentence. The persons guilty of a wrongous imprisonment are punished by a pecuniary mulct, from 6000l. down to 400l. Scots, according to the rank of the person detained; and the judge, or other person guilty, is over and above subjected to pay to the person detained a certain sum *per diem* proportioned to his rank, and is declared incapable of public trust. All these penalties may be insisted for by a summary action before the session, and are subject to no modification.

Adultery.

24. *Adultery*, is the crime by which the marriage bed is polluted. This crime could neither by the Roman nor Jewish law be committed, but where the guilty woman was the wife of another: by ours, it is adultery, if either the man or woman be married. We distinguish between simple adultery, and that which is notorious or manifest. Open and manifest adulterers, who continue incorrigible, notwithstanding the censures of the church, are punished capitally. This crime is distinguished by one or other of the following characters: where there is issue procreated between the adulterers; or where they keep bed and company together notoriously; or where they give scandal to the

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the church, and are, upon their obstinate refusing to listen to its admonitions, excommunicated. The punishment of simple adultery, not being defined by statute, is left to the discretion of the judge; but custom has made the falling of the single escheat one of its penalties.

Bigamy.

25. *Bigamy* is a person's entering into the engagements of a second marriage, in violation of a former marriage vow still subsisting. Bigamy, on the part of the man, has been tolerated in many states, before the establishment of Christianity, even by the Jews themselves; but it is prohibited by the precepts of the gospel; and it is punished by our law, whether on the part of the man or of the woman, with the pains of perjury.

Incest.

26. *Incest*, is committed by persons who stand within the degreess of kindred forbidden in Lev. xviii. and is punished capitally. The same degrees are prohibited in affinity, as in consanguinity, Lev. xviii. 13. *et seq.* As this crime is repugnant to nature, all children, whether lawful or natural, stand on an equal footing: *civilis ratio civilia jura corrumpere potest, non vero naturalia.* It is difficult indeed to bring a legal proof of a relation merely natural, on the side of the father; but the mother may be certainly known without marriage.

Rape.

27. There is no explicit statute making rape, or the ravishing of women, capital; but it is plainly supposed in act 1612, c. 4. by which the ravisher is exempted from the pains of death, only in the case of the woman's subsequent consent, or her declaration that she went off with him of her own free will; and even then, he is to suffer an arbitrary punisbment, either by imprisonment, confiscation of goods, or a pecuniary fine.

Theft.

28. *Theft* is defined, A fraudulent intermeddling with the property of another, with a view of making gain. Our ancient law proportioned the punishment of the theft to the value of the goods stolen; heightening it gradually, from a slight corporal punishment to a capital, if the value amounted to thirty-two pennies Scots, which in the reign of David I. was the price of two sheep. In several latter acts, it is taken for granted, that this crime is capital. But where the thing stolen is of small value, we consider it not as theft but as pickery, which is punished either corporally or by banisbment. The breaking of orchards, and the stealing of green wood, is punished by a fine, which rises as the crime is repeated.

29. Theft may be aggravated into a capital crime, though the value of the thing stoleu be trifling; as theft twice repeated, or committed in the night, or by landed men; or of things set apart for sacred uses.

Reset of theft.

The receivers and concealers of stolen goods, knowing them to be such, suffer as thieves. Those who barely harbour the person of the criminal within 48 hours either before or after committing the crime, are punished as partakers of the theft. Such as sell goods belonging to thieves or lawless persons who dare not themselves come to market, are punished with banishment and the escheat of moveables.

Robbery, &c.

30. Theft attended with violence is called *robbery*, and in our old statutes, *rief* or *stouthrief*; under which class may be included *sorning*, or the taking of meat and drink by force, without paying for it. Stouthrief came at last to be committed so audaciously, by bands of men associated together, that it was thought necessary to vest all our freeholders with a power of holding courts upon sorners and rievers, and condemning them to death. Nay, all were capitally punished, who, to secure their lands from depredation, paid to the rievers a yearly contribution, which got the name of *black mail.* An act also passed, commanding to banishment a band of sorners, who were originally from *Egypt*, called *gypsies*, and adjudging to death all that should be reputed *Egyptians*, if found thereafter within the kingdom. Robbery committed on the seas is called *piracy*, and is punished capitally by the high admiral. Several of the facts which constitute this crime are set forth in a British statute, 8 Geo. I. c. 24. Law of Scotland.

Falsehood.

31. *Falsehood*, in a large sense, is the fraudulent imitation or suppression of truth, to the damage of another. The lives and goods of persons convicted of using false weights or measures were, by our old law, in the king's mercy: and their heirs could not inherit but upon a remission. The latest statute against this crime punishes it by confiscation of moveables. That particular species of falsehood, which consists in the falsifying of writings, passes by the name of *forgery.* Our practice has now of a long time, agreeably to the Roman law, made this crime capital; unless the forgery be of executions, or other writings of smaller moment; in which case, it is punished arbitrarily. Forgery.

32. The writing must not only be fabricated, but put to use or founded on, in order to infer this crime. And though it be strictly criminal, yet the trial of it is proper to the court of session; but where improbation is moved against a deed by way of exception, the inferior judge, before whom the action lies, is competent to it *ad civilem effectum.* When it is pleaded as an exception, our practice, to discourage affected delays, obliges the defender, who moves it, to consign 40l. Scots; which he forfeits, if his plea shall appear calumnious.

33. Where a person, found guilty of forgery by the court of session, is by them remitted to the justiciary, an indictment is there exhibited against him, and a jury sworn, before whom the decree of session is produced, in place of all other evidence of the crime, in respect of which the jury find the pannel guilty; so that that decree being pronounced by a competent court, is held as full proof, or, in the style of the bar, as *probatio probata.*

Perjury.

34. *Perjury*, which is the judicial affirmation of a falsehood on oath, really constitutes the *crimen falsi;* for he who is guilty of it does, in the most solemn manner, substitute falsehood in the place of truth. To constitute this crime, the violation of truth must be deliberately intended by the swearer; and therefore reasonable allowances ought to be given to forgetfulness or misapprehension, according to his age, health, and other circumstances. The breach of a promissory oath does not infer this crime; for he who promises on oath may sincerely intend performance when he swears, and so cannot be said to call on God to attest a falsehood. Though an oath, however false, if made upon reference in a civil question, concludes the cause, the person perjured is liable to a criminal trial; for the effect of the reference can go no further than the private right of the parties.

35. Notwithstanding the mischievous consequences

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of perjury to society, it is not punished capitally, but by confiscation of moveables, imprisonment for a year, and infamy. The court of session is competent to perjury *incidenter*, when, in any examination upon oath, taken in a cause depending before them, a person appears to have sworn falsely: but in the common case, that trial is proper to the justiciary. *Subornation of perjury* consists in tampering with persons who are to swear in judgment, by directing them how they are to depose: and it is punished with the pains of perjury.

Stellionate.

36. The crime of *stellionate*, from *stellio*, includes every fraud which is not distinguished by a special name; but is chiefly applied to conveyances of the same numerical right, granted by the proprietor to different disponees. The punishment of stellionate must necessarily be arbitrary, to adapt it to the various natures and different aggravations of the fraudulent acts. The persons guilty of that kind of it, which consists in granting double conveyances, are by our law declared infamous, and their lives and goods at the king's mercy. The cognizance of *fraudulent bankruptcy* is appropriated to the court of session, who may inflict any punishment on the offender that appears proportioned to his guilt, death excepted.

Usury.

37. The crime of *usury*, before the Reformation, consisted in the taking of *any* interest for the use of money; and now in taking a higher rate of interest than is authorized by law. It is divided into *usura manifesta*, or direct; and *velata*, or covered. One may be guilty of the first kind, either where he covenants with the debtor for more than the lawful interest on the loan-money: or where one receives the interest of a sum before it is due, since thereby he takes a consideration of the use of money before the debtor has really got the use of it. Where a debt is clogged with an uncertain condition, by which the creditor runs the hazard of losing his sum, he may covenant for a higher interest than the legal, without the crime of usury: for there the interest is not given merely in consideration of the use of the money, but of the danger undertaken by the creditor.

38. Covered usury, is that which was committed under the mask, not of a loan, but of some other contract; e. g. a sale or an improper wadset. And in general, all obligations entered into with an intention of getting more than the legal interest for the use of money, however they may be disguised, are usurious. As a farther guard against this crime, the taking more than the legal interest for the forbearance of payment of money, merchandise, or other commodities, by way of loan, exchange, or other contrivance whatever, or the taking a bribe for the loan of money, or for delaying its payment when lent, is declared usury. Where usury is proved, the usurious obligation is not only declared void, but the creditor, if he has received any unlawful profits, forfeits the treble value of the sums or goods lent. Usury when it is to be pursued criminally, must be tried by the justiciary: but where the libel concludes only for voiding the debt, or restitution, the session is the proper court.

Injury.

39. *Injury*, in its proper acceptation, is the reproaching or affronting our neighbour. Injuries are either verbal or real. A verbal injury, when directed against a private person, consists in the uttering contumelious words, which tend to expose our neighbour's character by making him little or ridiculous. It does not seem that the twitting one with natural defects without any sarcastical reflections, though it be inhuman, falls under this description, as these imply no real reproach in the just opinion of mankind. Where the injurious expressions have a tendency to blacken one's moral character, or fix some particular guilt upon him, and are deliberately repeated in different companies, or handed about in whispers to confidants, it then grows up to the crime of slander: and where a person's moral character is thus attacked, the *animus injuriandi* is commonly inferred from the injurious words themselves, unless special circumstances be offered to take off the presumption, *ex gr.* that the words were uttered in judgment in one's own defence, or by way of information to a magistrate, and had some foundation in fact. Though the cognizance of slander is proper to the commissaries, who, as the *judices Christianitatis*, are the only judges of scandal; yet, for some time past, bare verbal injuries have been tried by other criminal judges, and even by the session. It is punished either by a fine, proportioned to the condition of the persons injuring and injured, and the circumstances of time and place; or if the injury import scandal, by publicly acknowledging the offence; and frequently the two are conjoined. The calling one a bankrupt is not, in strict speech, a verbal injury, as it does not affect the person's moral character; yet, as it may hurt his credit in the way of business, it founds him in an action of damages, which must be brought before the judge-ordinary. A real injury is inflicted by any fact, by which a person's honour or dignity is affected; as striking one with a cane, or even aiming a blow without striking; spitting in one's face; assuming a coat of arms, or any other mark of distinction proper to another, &c. The composing and publishing defamatory libels may be reckoned of this kind. Real injuries are tried by the judge-ordinary, and punished either by fine or imprisonment, according to the demerit of the offenders.

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40. After having shortly explained the several crimes punishable by our law, this treatise may be concluded with a few observations on criminal jurisdiction, the forms of trial, and the methods by which crimes may be extinguished. Criminal jurisdiction is founded, 1. *Ratione domicilii*, if the defender dwells within the territory of the judge. Vagabonds, who have no certain *domicile*, may be tried wherever they are apprehended. 2. *Ratione delicti*, if the crime was committed within the territory. Treason is triable, by the English law, in any county that the king should appoint; and, by a temporary act now expired, treason committed in certain Scots counties was made triable by the court of justiciary, wherever it should sit.

Criminal jurisdiction.

41. No criminal trial can proceed, unless the person accused is capable of making his defence. Absents therefore cannot be tried; nor fatuous nor furious persons, *durante furore*, even for crimes committed while they were in their senses. For a like reason, minors who had no curators, could not, by the Roman law, be tried criminally: but our practice considers every person who is capable of dole, to be also sufficiently qualified for making his defence in a criminal trial.

What persons are not triable.

42. No person can be imprisoned in order to stand trial

Committment.

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trial for any crime, without a warrant in writing expressing the cause, and proceeding upon a subscribed information, unless in the case of indignities done to judges, riots, and the other offences specially mentioned in 1701, c. 6. Every prisoner committed in order to trial, if the crime of which he is accused be not capital, is intitled to be released upon bail, the extent of which is to be modified by the judge, not exceeding 12,000 merks Scots for a nobleman, 6000 for a landed gentleman, 2000 for every other gentleman or burgess, and 600 for any other enferior person. That persons who, either from the nature of the crime with which they are charged, or from their low circumstances, cannot procure bail, may not lie for ever in prison untried, it is lawful for every such prisoner to apply to the criminal judge, that his trial may be brought on. The judge must, within 24 hours after such application, issue letters directed to messengers, for intimating to the prosecutor to fix a diet for the prisoner's trial, within 60 days after the intimation, under the pain of wrongous imprisonment: And if the prosecutor does not insist within that time, or if the trial is not finished in forty days more when carried on before the justiciary, or in thirty when before any other judge; the prisoner is, upon a second application, setting forth that the legal time is elapsed, entitled to his freedom, under the same penalty.

Precognition.

43. Upon one's committing any of the grosser crimes, it is usual for a justice of the peace, sheriff, or other judge, to take a precognition of the facts, i. e. to examine those who were present at the criminal act, upon the special circumstances attending it, in order to know whether there is ground for a trial, and to serve as a direction to the prosecutor, how to set forth the facts in the libel; but the persons examined may insist to have their declarations cancelled before they give testimoney at the trial. Justices of the peace, sheriffs, and magistrates of boroughs, are also authorized to receive informations, concerning crimes to be tried in the circuit-courts: which informations are to be transmitted to the justice-clerk 40 days before the sitting of the respective courts. To discourage groundless criminal trials, all prosecutors, where the defender was absolved, were condemned by statute, in costs, as they should be modified by the judge, and besides were subjected to a small fine, to be divided between the fisk and the defender: And where the king's advocate was the only pursuer, his informer was made liable. This sufficiently warrants the present practice of condemning vexatious prosecutors in a pecuniary mulct, though far exceeding the statutory sum.

Form of trial.

44. The forms upon trial in criminal accusations, differ much from those observed in civil actions, if we except the case of such crimes as the court of session is competent to, and of lesser offences tried before inferior courts. The trial of crimes proceeds either upon indictment, which is sometimes used when the person to be tried is in prison; or by criminal letters issuing from the signet of the justiciary. In either case, the defender must be served with a full copy of the indictment or letters, and with a list of the witnesses to be brought against him, and of the persons who are to pass on the inquest, and 15 free days must intervene between his being so served and the day of appearance.

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When the trial proceeds upon criminal letters, the private prosecutor must give security, at raising the letters, that he will report them duly executed to the justiciary, in terms of 1535, c. 35.; and the defender, if he be not already in prison, is, by the letters, required to give caution, within a certain number of days after his citation, for his appearance upon the day fixed for his trial: And if he gives none within the days of the charge, he may be denounced rebel, which infers the forfeiture of his moveables.

45. That part of the indictment, or of the criminal letters, which contains the ground of the charge against the defender, and the nature or degree of the punishment he ought to suffer, is called the *libel*. All libels must be special, setting forth the particular facts inferring the guilt, and the particular place where these facts were done. The time of committing the crime may be libelled in more general terms, with an alternative as to the month, or day of the month: but as it is not practicable, in most cases, to libel upon the precise circumstances of accession that may appear in proof, libels against accessories are sufficient, if they mention, in general, that the persons prosecuted are guilty art and part.

46. The defender in a criminal trial may raise letters of exculpation, for citing witnessses in proof of his defences against the libel, or of his objections against any of the jury or witnesses; which must be executed to the same day of appearance with that of the indictment or criminal letters.

47. The diets of appearance, in the court of justiciary, are peremptory: the criminal letters must be called on the very day on which the defender is cited: and hence, if no accuser appears, their effect is lost, *instantia perit*, and new letters must be raised. If the libel, or any of the executions, shall to the prosecutor appear informal, or if he be diffident of the proof, from the absconding of a necessary witness, the court will, upon a motion made by him, desert the diet *pro loco et tempore;* after which new letters become also necessary. A defender, who does not appear on the very day to which he is cited, is declared fugitive; in consequence of which his single escheat falls. The defender, after his appearance in court, is called the *pannel*.

Diets of appearance.

48. The two things to be chiefly regarded in a criminal libel, are, 1. The relevancy of the facts, i. e. their sufficiency to infer the conclusion; 2. Their truth. The consideration of the first belongs to the judge of the court; that of the other, to the jury or assize. If the facts libelled be found irrelevant, the pannel is dismissed from the bar; if relevant, the court remits the proof thereof to be determined by the jury; which must consist of 15 men picked out by the court from a greater number, not exceeding 45, who have been all summoned, and given in list to the defender at serving him with a copy of the libel.

Probation of crimes.

49. Crimes cannot, like debts, be referred to the defender's oath; for no person is compellable to swear against himself, where his life, limb, liberty, or estate is concerned, nor even in crimes which infer infamy; because one's good name is, in right estimation, as valuable as his life. There is one exception however to this rule in trying the crime of usury, which may be proved

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proved by the usurer's own oath, notwithstanding the rule, *Nemo tenetur jurare in suam turpitudinem*. Crimes therefore are in the general case proveable only by the defender's free confession, or by writing, or by witnesses. No extrajudicial confession, unless it is adhered to by the paunel in judgment, can be admitted as evidence.

Socii criminis.

50. All objections relevant against a witness in civil cases are also relevant in criminal. No witness is admitted, who may gain or lose by the event of the trial. *Socii criminis*, or associates in the same crime, are not admitted against one another, except either in crimes against the state, as treason; in occult crimes, where other witnesses cannot he had, as forgery; or in theft, or depredations committed in the Highlands. The testimony of the private party injured may be received against the pannel, where the king's advocate is the only prosecutor, if from the nature of the crime, there must needs be a penury of witnesses, as in rape, robbery, &c.

Verdict of assize.

51. After all the witnesses have been examined in court, the jury are shut up in a room by themselves, where they must continue, excluded from all correspondence, till their verdict or judgment be subscribed by the foreman (or chancellor) and clerk; and according to this verdict the court pronounces sentence, either absolving or condemning. It is not necessary, by the law of Scotland, that a jury should be unanimous in finding a person guilty; the narrowest majority is as sufficient against the pannel, as for him. Juries cannot be punished on account of an erroueous verdict, either for or against the pannel.

Powers of a jury.

52. Though the proper business of a jury be to inquire into the truth of the facts found relevant by the court, for which reason they are sometimes called the *inquests*; yet, in many cases, they judge also in matters of law or relevancy. Thus, though an objection against a witness should be repelled by the court, the jury are under no necessity to give more credit to his testimony than they think just: And in all trials of art and part, where special facts are not libelled, the jury, if they return a general verdict, are indeed judges not only of the truth, but the relevancy of the facts that are sworn to by the witnesses. A general verdict, is that which finds in general terms, that the pannel is guilty or not guilty, or that the libel or defences are proved or not proved. In a special verdict, the jury finds certain facts proved, the import of which is to be afterwards considered by the court,

Sentences.

53. Criminal judges must now suspend for some time the execution of such sentences as affect life or limb, that so condemned criminals, whose cases deserve favour, may have access to apply to the king for mercy. No sentence of any court of judicature, south of the river Forth, importing either death or demembration, can be executed in less than 30 days; and, if north of it in less than 40 days, after the date of the sentence. But corporal punishments, less than death or dismembering, e. g. whiping, pillory, &c. may be inflicted eight days after sentence on this side Forth, and twelve days after sentence beyond it.

Extinction of crimes.

54. Crimes are extinguished, 1. By the death of the criminal: both because a dead person can make no defence, so that his trial is truly a judging upon the hearing of one side; and because, though his guilt should be ever so notorious, he is after death carried beyond the reach of human penalties: Such trials therefore can have no effect, but to punish the innocent heir, contrary to that most equitable rule, *Culpa tenet suos auctores*. 2. Crimes may be extinguished by a remission from the sovereign. But a remission, though it secures the delinquent from the public resentment, the exercise of which belongs to the crown, cannot cut off the party injured from his claim of damages, over which the crown has no prerogative. Whoever therefore founds on a remission, is liable in damages to the private prosecutor, in the same manner as if he had been tried and found guilty. Even general acts of indemnity passed in parliament, though they secure against such penalties as law inflicts upon the criminal merely *per modum pœnæ*, yet do not against the payment of any pecuniary fine that is given by statute to the party injured, nor against the demand of any claim competent to him in name of damages.

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55. Lesser injuries, which cannot be properly said to affect the public peace, may be extinguished, either by the private party's expressly forgiving him, or by his being reconciled to the offender, after receiving the injury. Hence arises the rule, *Dissimulatione tollitur injuria*. But where the offence is of a higher nature, the party injured, though he may pass from the prosecution, in so far as his private interest is concerned, cannot preclude the king's advocate, or procurator-fiscal, from insisting *ad vindictam publicam*.

Prescription.

56. Crimes are also extinguished by prescription, which operates by the mere lapse of time, without any act either of the sovereign or of the private sufferer. Crimes prescribe in 20 years; but in particular crimes, the prescription is limited by statute to a shorter time. No person can be prosecuted upon the act against wrongous imprisonment, after three years. High treason, committed within his majesty's dominions, suffers likewise a triennial prescription, if indictment be not found against the traitor withiu that time. All actions brought upon any penal statute made or to be made, where the penalty is appropriated to the crown, expire in two years after committing the offence; and where the penalty goes to the crown or other prosecutor, the prosecutor must sue within one year, and the crown within two years after the year ended. Certain crimes are, without the aid of any statute, extinguished by a shorter perscription than twenty years. By our old law, in the cases of rape, robbery, and hamesucken, the party injured was not heard after a silence of twenty-four hours; from a presumption, that persons could not be so grossly injured, without immediately complaining: And it is probable, that a prosecution for these crimes, if delayed for any considerable time would be cast even at this day, or at least the punishment restricted. Lesser injuries suffer also a short prescription; law *presuming* forgiveness, from the nature of the offence, and the silence of the party. The particular space of time sufficient to establish this presumption must be determined by the judge, according to circumstances.

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L A W

Law-Language.

Law-Language. In England all law proceedings were formerly written, as indeed all public proceedings were, in Norman or law French, and even the arguments of the counsel and decisions of the court were in the same barbarous dialect:—An evident and shameful badge, it must be owned, of tyranny and foreign servitude; being introduced under the auspices of William the Norman, and his sons: whereby the observation of the Roman satirist was once more verified, that *Gallia causidicos docuit facunda Britannos*. This continued till the reign of Edward III.; who, having employed his arms successfully in subduing the crown of France, thought it unbeseeming the dignity of the victors to use any longer the language of a vanquished country. By a statute, therefore, passed in the 36th year of his reign, it was enacted, that for the future all pleas should be pleaded, shown, defended, answered, debated, and judged, in the English tongue; but be entered and enrolled in Latin: In like manner as Don Alonso X. king of Castile (the great-grandfather of our Edward III.) obliged his subjects to use the Castilian tongue in all legal proceedings; and as, in 1286, the German language was established in the courts of the empire. And, perhaps, if our legislature had then directed that the writs themselves, which are mandates from the king to his subjects to perform certain acts, or to appear at certain places, should have been framed in the English language, according to the rule of our ancient law, it had not been very improper. But the record or enrolment of these writs and the proceedings thereon, which was calculated for the benefit of posterity, was more serviceable (because more durable) in a dead and immutable language than in any flux or living one. The practisers, however, being used to the Norman language, and therefore imagining they could express their thoughts more aptly and more concisely in that than in any other, still continued to take their notes in law French; and, of course, when those notes came to be published, under the denomination of *reports*, they were printed in that barbarous dialect; which, joined to the additional terrors of a Gothic black letter, has occasioned many a student to throw away his Plowden and Littleton, without venturing to attack a page of them. And yet in reality, upon a nearer acquaintance, they would have found nothing very formidable in the language; which differs in its grammar and orthography as much from the modern French, as the diction of Chaucer and Gower does from that of Addison and Pope. Besides, as the English and Norman languages were concurrently used by our ancestors for several centuries together, the two idioms have naturally assimilated, and mutually borrowed from each other: for which reason the grammatical construction of each is so very much the same, that I apprehend an Englishman

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Law-Language.

Englishman (with a week's preparation) would understand the laws of Normandy, collected in their *grand coustumier*, as well, if not better, than a Frenchman bred within the walls of Paris.

The Latin, which succeeded the French for the entry and enrolment of pleas, and which continued in use for four centuries, answers so nearly to the English (oftentimes word for word) that it is not at all surprising it should generally be imagined to be totally fabricated at home, with little more art or trouble than by adding Roman terminations to English words. Whereas in reality it is a very universal dialect, spread throughout all Europe at the irruption of the northern nations; and particularly accommodated and moulded to answer all the purposes of the lawyers with a peculiar exactness and precision. This is principally owing to the simplicity, or (if the reader pleases) the poverty and baldness of its texture, calculated to express the ideas of mankind just as they arise in the human mind, without any rhetorical flourishes, or perplexed ornaments of style: for it may be observed, that those laws and ordinances, of public as well as private communities, are generally the most easily understood, where strength and perspicuity, not harmony or elegance of expression, have been principally consulted in compiling them. These northern nations, or rather their legislators, though they resolved to make use of the Latin tongue in promulging their laws, as being more durable and more generally known to their conquered subjects than their own Teutonic dialects, yet (either through choice or necessity) have frequently intermixed therein some words of a Gothic original: which is, more or less, the case in every country of Europe, and therefore not to be imputed as any peculiar blemish in our English legal latinity. The truth is, what is generally denominated *law-Latin* is in reality a mere technical language, calculated for eternal duration, and easy to be apprehended both in present and future times; and on those accounts best suited to preserve those memorials which are intended for perpetual rules of action. The rude pyramids of Egypt have endured from the earliest ages, while the more modern and more elegant structures of Attica, Rome, and Palmyra, have sunk beneath the stroke of time.

As to the objection of locking up the law in a strange and unknown tongue, this is of little weight with regard to records; which few have occasion to read, but such as do, or ought to, understand the rudiments of Latin. And besides, it may be observed of the law-Latin, as the very ingenious Sir John Davis observes of the law-French, "that it is so very easy to be learned, that the meanest wit that ever came to the study of the law doth come to understand it almost perfectly in ten days without a reader."

It is true, indeed, that the many terms of art, with which the law abounds, are sufficiently harsh when Latinized (yet not more so than those of other sciences), and may, as Mr Selden observes, give offence "to some grammarians of squeamish stomachs, who would rather choose to live in ignorance of things the most useful and important, than to have their delicate ears wounded by the use of a word unknown to Cicero, Sallust, or the other writers of the Augustan age." Yet this is no more than must unavoidably happen when things of modern use, of which the Romans had no idea, and consequently no phrases to express them, come to be delivered in the Latin tongue. It would puzzle the most classical scholar to find an appellation, in his pure Latinity, for a constable, a record, or a deed of feoffment: it is therefore to be imputed as much to necessity as ignorance, that they were styled in our forensic dialect, *constabularius*, *recordum*, and *feoffamentum*. Thus again, another uncouth word of our ancient laws (for I defend not the ridiculous barbarisms sometimes introduced by the ignorance of modern practisers), the substantive *murdrum*, or the verb *murdrare*, however harsh and unclassical it may seem, was necessarily framed to express a particular offence; since no other word in being, *occidere*, *interficere*, *necare*, or the like, was sufficient to express the intention of the criminal, or *quo animo* the act was perpetrated; and therefore by no means came up to the notion of murder at present entertained by law; viz. a killing *with malice aforethought*.

Law-Language.

A similar necessity to this produced a similar effect at Byzantium, when the Roman laws were turned into Greek for the use of the oriental empire; for without any regard to Attic elegance, the lawyers of the imperial courts made no scruple to translate *fidei commissarios*, φιδει κομμισσαριους; *cubiculum*; κυβυκλειον; *filium-familias*, παιδα-φαμιλιας; *repudium*, ρεπυδιον; *compromissum*, κομπρομισσον; *reverentia et obsequium*, ρευερεντια και οβσικιον; and the like. They studied more the exact and precise import of the words, than the neatness and delicacy of their cadence. And it may be suggested, that the terms of the law are not more numerous, more uncouth, or more difficult to be explained by a teacher, than those of logic, physics, and the whole circle of Aristotle's philosophy; nay, even of the politer art of architecture and its kindred studies, or the science of rhetoric itself. Sir Thomas More's famous legal question contains in it nothing more difficult, than the definition which in his time the philosophers currently gave of their *materia prima*, the groundwork of all natural knowledge; that it is *neque quid*, *neque quantum*, *neque quale*, *neque aliquid eorum quibus ens determinatur*; or its subsequent explanation by Adrian Heereboard, who assures us, that *materia prima non est corpus, neque per formam corporeitatis, neque per simplicem essentiam: est tamen ens, et quidem substantia, licet incompleta; habetque actum ex se entitativum, et simul est potentia subjectiva.* The law, therefore, with regard to its technical phrases, stands upon the same footing with other studies, and requests only the same indulgence.

This technical Latin continued in use from the time of its first introduction, till the subversion of our ancient constitution under Cromwell: when, among many other innovations in the law, some for the better and some for the worse, the language of our records was altered and turned into English. But, at the restoration of King Charles, this novelty was no longer countenanced; the practisers finding it very difficult to express themselves so concisely or significantly in any other language but the Latin. And thus it continued without any sensible inconvenience till about the year 1730, when it was again thought proper that the proceedings at law should be done into English, and it was accordingly so ordered by statute 4 Geo. II. c 26. This was done, in order that the common people might have knowledge and understanding of what

Law. was alleged or done for and against them in the process and pleadings, the judgment and entries in cause. Which purpose it is doubtful how well it has answered; but there is reason to suspect, that the people are now, after many years experience, altogether as ignorant in matters of law as before. On the other hand, these inconveniences have already arisen from the alteration; that now many clerks and attorneys are hardly able to read, much less to understand, a record even of so modern a date as the reign of George I. And it has much enhanced the expence of all legal proceedings: for since the practisers are confined (for the sake of the stamp duties, which are thereby considerably increased) to write only a stated number of words in a sheet; and as the English language, through the multitude of its particles, is much more verbose than the Latin; it follows, that the number of sheets must be very much augmented by the change. The translation also of technical phrases, and the names of writs and other process, were found to be so very ridiculous (a writ of *nisi prius*, *quare impedit*, *fieri facias*, *habeas corpus*, and the rest, not being capable of an English dress with any degree of seriousness), that in two years time a new act was obliged to be made, 6 Geo. II. c. 14. which allows all technical words to continue in the usual language, and has thereby defeated every beneficial purpose of the former statute.

Trial by Wager of LAW, (*vadiatio legis*); a species of trial, in the English law, so called, as another species is styled "wager of battel," *vadiatio duelli*, (see BATTEL); because, as in the wager of battel, the defendant gave a pledge, gage, or *vadium*, to try the cause by battel; so here he was to put in sureties or *vadios*, that at such a day he will make his law, that is, take the benefit which the law has allowed him. (See the article TRIAL). For our ancestors considered, that there were many cases where an innocent man, of good credit, might be overborne by a multitude of false witnesses; and therefore established this species of trial, by the oath of the defendant himself: for if he will absolutely swear himself not chargeable, and appears to be a person of reputation, he shall go free, and for ever acquitted of the debt, or other cause of action.

Blackst. Comment. The manner of waging and making law is this. He that has waged, or given security to make his law, brings with him into court eleven of his neighbours: a custom which we find particularly described so early as in the league between Alfred and Guthrun the Dane; for by the old Saxon constitution every man's credit in courts of law depended upon the opinion which his neighbours had of his veracity. The defendant then, standing at the end of the bar, is admonished by the judges of the nature and danger of a false oath. And if he still persists, he is to repeat this or the like oath: "Hear this, ye justices, that I do not owe unto Richard Jones the sum of ten pounds, nor any penny thereof, in manner and form as the said Richard hath declared against me. So help me God." And thereupon his eleven neighbours or compurgators shall avow upon their oaths, that they believe in their consciences that he saith the truth; so that himself must be sworn *de fidelitate*, and the eleven *de credulitate*.

In the old Swedish or Gothic constitution, wager of law was not only permitted, as it is in *criminal* cases, unless the fact be extremely clear against the prisoner; but was also absolutely required, in many *civil* cases: which an author of their own very justly charges as being the source of frequent perjury. This, he tells us, was owing to the Popish ecclesiastics, who introduced this method of purgation from their canon law; and, having sown a plentiful crop of oaths in all judicial proceedings, reaped afterwards an ample harvest of perjuries: for perjuries were punished in part by pecuniary fines, payable to the coffers of the church. But with us in England wager of law is never *required;* and then only *admitted*, where an action is brought upon such matters as may be supposed to be privately transacted between the parties, and wherein the defendant may be presumed to have made satisfaction without being able to prove it. Therefore it is only in actions of debt upon simple contract, or for amercement, in actions of detinue, and of account, where the debt may have been paid, the goods restored, or the account balanced, without any evidence of either. And by such wager of law (when admitted) the plaintiff is perpetually barred; for the law, in the simplicity of the ancient times, presumed that no one would forswear himself for any worldly thing. Wager of law, however, lieth in a real action, where the tenant alleges he was not legally summoned to appear, as well as in mere personal contracts. Law. *Stiernhook*, lib. ix. c. 1.

The wager of law was never permitted but where the defendant bore a fair and unreproachable character; and it was also confined to such cases where a debt might be supposed to be discharged, or satisfaction made in private, without any witnesses to attest it: and many other prudential restrictions accompanied this indulgence. But at length it was considered, that (even under all its restrictions) it grew too great a temptation in the way of indigent and profligate men: and therefore by degrees new remedies were devised, and new forms of actions were introduced, wherein no defendant is at liberty to wage his law. So that now no plaintiff need at all apprehend any danger from the hardiness of his debtor's conscience, unless he voluntarily chooses to rely on his adversary's veracity, by bringing an obsolete, instead of a modern action. Therefore, one shall hardly hear at present of an action of *debt* brought upon a simple contract: that being supplied by an action of *trespass on the case* for the breach of a promise or *assumpsit;* wherein, though the specific debt cannot be recovered, yet damages may, equivalent to the specific debt. And, this being an action of trespass, no law can be waged therein. So, instead of an action of *detinue* to recover the very thing detained, an action of trespass on the case in *trover and conversion* is usually brought; wherein though the horse or other specific chattel cannot be had, yet the defendant shall pay damages for the conversion, equal to the value of the chattel; and for this trespass also no wager of law is allowed. In the room of actions of *account*, a bill in equity is usually filed: wherein, though the defendant answers upon his oath, yet such oath is not conclusive to the plaintiff; but he may prove every article by other evidence, in contradiction to what the defendant has sworn. So that wager of law is quite out of use, being avoided by the mode of bringing the action; but still it is not out of force.

And

Law, Custom-house Laws.

And therefore, when a new statute inflicts a penalty, and gives an action of debt for recovering it, it is usual to add, "in which no wager of law shall be allowed:" otherwise a hardy delinquent might escape any penalty of the law, by swearing he had never incurred, or else had discharged it.

Custom-house Laws. The expedient of exacting duties on goods imported, or exported, has been adopted by every commercial nation in Europe. The attention of the British legislature has not been confined to the object of raising a revenue alone, but they have attempted by duties, exemptions, drawbacks, bounties, and other regulations, to direct the national trade into those channels that contribute most to the public benefit. And, in order to obtain every requisite information, all goods, exported or imported, whether liable to duty or not, are required to be entered at the respective custom-houses; and, from these entries, accounts are regularly made up of the whole British trade, distinguishing the articles, their quantity and value, and the countries which supply or receive them.

The objects of the British legislature may be reduced to the following heads.

First, To encourage the employment of British shipping and seamen, for the purpose of supplying our navy when public exigencies require.

Secondly, To increase the quantity of money in the nation, by prohibiting the exportation of British coin, by encouraging exportation, and discouraging importation, and by promoting agriculture, fisheries, and manufactures. For these purposes, it is penal to entice certain manufacturers abroad, or export the tools used in their manufactures: the exportation of raw materials is, in most instances, prohibited; and their importation permitted free from duty, and sometimes rewarded with a bounty. The exportation of some goods, manufactured to a certain length only (for example white cloth), is loaded with a duty, but permitted duty free when the manufacture is carried to its full extent. The importation of rival manufactures is loaded with heavy duties, or absolutely prohibited. These restrictions are most severe towards nations with which the balance of trade is supposed against us, or which are considered as our most formidable rivals in power or commerce. Upon this principle the commerce with France, till lately, laboured under the heaviest restrictions.

Thirdly, To secure us plenty of necessaries for subsistence and manufacture, by discouraging the exportation of some articles that consume by length of time, and regulating the corn trade according to the exigencies of the seasons.

Fourthly, To secure the trade of the colonies to the mother country, and preserve a mutual intercourse, by encouraging the produce of their staple commodities, and restraining their progress in these commodities, which they receive from us in exchange.

Hamilton's Introduction to Merchandise.

The foundation of our commercial regulations is the famous act of navigation, which was first enacted during the time of the Commonwealth, and adopted by the first parliament after the Restoration. The substance of this act, and subsequent amendments, is as follows:

1. Goods from Asia, Africa, and America, may not be imported, except in British ships duly navigated; or ships belonging to the British plantations; and they can only be imported from the place of their production or manufacture, or the port where they are usually first shipped for transportation. Goods of the Spanish or Portuguese plantations, imported from Spain and Portugal in British ships, bullion, and some other inconsiderable articles, are excepted.

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The restriction on European goods is not universal, but extends to several of the bulkiest articles. Russian goods, masts, timber, boards, salt, pitch, rosin, tar, hemp, flax, raisins, figs, prunes, olives, oil, corn, sugar, potashes, wine, and vinegar, may not be imported, except in ships belonging to Great Britain or Ireland, legally manned; nor Turkey goods and currants, except in ships British built; or in ships belonging to the country where these goods are produced or manufactured, or first shipped for exportation, and, if imported in foreign ships, they pay alien's duty.

In order to entitle a ship to the privileges of a British ship, it must be built in Britain, and belong entirely to British subjects; and the master, and three-fourths of the mariners, must be British subjects, except in case of death, or unavoidable accidents. In time of war, the proportion of British mariners required is generally confined to one-fourth; and the same proportion only is required in the Greenland fishery.

No goods may be imported into, or exported from, the plantations in Asia, Africa, or America, except in ships built in Britain, Ireland, or the plantations, or prize ships, manned by British subjects, duly registered, and legally navigated.

The following goods, enumerated in the act of navigation and subsequent acts, may not be exported from the plantations, except to some other plantation, or to Britain: Tobacco, cotton wool, indigo, ginger, fustic, and other dying wood, molasses, hemp, copper ore, beaver skins and other furs, pitch, tar, turpentine, masts, yards, and boltsprits, coffee, pimento, cocoa-nuts, whale fins, raw silk, pot and pearl ashes. Rice and sugar were formerly comprehended in this list, but their exportation is now permitted under certain restrictions.

Iron may not be imported to Europe, except to Ireland; and none of the non-enumerated may be imported to any country north of Cape Finisterre, except the bay of Biscay and Ireland.

2. For the more effectual prevention of smuggling, no goods may be imported in vessels belonging to British subjects; and no wine, in any vessel whatever, unless the master have a manifest on board, containing the name, measure, and built of the ship, the place to which it belongs, and a distinct enumeration of the goods on board, and places where they were laden. If the ship be cleared from any place under his majesty's dominions, the manifest must be attested by the chief officer of the customs, or chief magistrate, who is required to transmit a copy thereof to the place of destination. Shipmasters must deliver copies of this manifest to the first customhouse officer who goes on board within four leagues of the shore, and also to the first who goes on board within the limits of any port, and must deliver the original manifest to the customhouse at their arrival, and make report of their cargo

Custom-house Laws.

upon oath. If the report disagree with the manifest, or either disagree with the cargo on board, the shipmaster is liable in the penalty of 200l. The proprietors of the goods must enter them, and pay the duties within 20 days; otherwise they may be carried to the customhouse, and sold by auction, if not relieved within six months; and the overplus of the value, after paying duty and charges, paid to the proprietors.

3. The importation of cattle, beef, mutton, and pork, except from Ireland, woollen cloths, malt, and various articles of hardware, cutlery, and earthen ware, is prohibited: Also the following goods from Germany and the Netherlands; olive oil, pitch, tar, potashes, rosin, salt, tobacco, wines, except Rhenish wine, and Hungary wines from Hamburgh.

4. The importation of various other goods is restricted by particular regulations, respecting the time and place of importation, the packages, the burden of the ship, the requisition of a license, and other circumstances.

To guard more effectually against clandestine trade, the importation of some articles is only permitted in ships of a certain burden, whose operations are not easily concealed. Spirits must be imported in ships of 100 tons or upwards, except rum, and spirits of British plantations, which are only restricted to 70 tons; wine, 60 tons; tea, tobacco, and snuff, 50 tons; salt, 40 tons. Wine, spirits, and tobacco are also restricted in respect of the packages in which they may be imported.

5. Diamonds and precious stones, flax, flax seed, linen rags, beaver wool, wool for clothiers, linen yarn unbleached, and most drugs used in dycing, may be imported duty free.

6. All goods imported are liable to duties, except such as are expressly exempted. The revenue of customs is of great antiquity in Britain, but was newmodelled at the restoration of Charles II. A subsidy of tonnage on wines, and of poundage, or 1s. per pound value of other goods, was granted during the king's life, and, after several prolongations, rendered perpetual. A book of rates was composed for ascertaining these values; and articles not rated paid duty according to the value, as affirmed upon oath by the importer. If the goods be valued too low by the importer, the customhouse officer may seize them, upon paying to the proprietor the value he swore to, and 10 per cent. for profit; such goods to be sold, and the overplus paid into the customs. Various additional duties have been imposed; some on all goods, some on particular kinds; some according to the rates, some unconnected with the rates; some with an allowance of certain abatements, some without any allowance; the greater part to be paid down in ready money, and a few for which security may be granted; often with variations, according to the ship's place and circumstances of importation. The number of branches amounted to upwards of 50; and sometimes more than 10 were chargeable on the same articles. By this means, the revenue of the customs has become a subject of much intricacy. The inconveniences which this gave rise to are now removed by the consolidation act; which appoints one fixed duty for each article free from fractions, instead of the various branches to which they were formerly subject.

Custom-house Laws, Mercantile Laws.

7. Goods of most kinds may be exported duty free when regularly entered; and those that have paid duty on importation are generally entitled to drawback of part, sometimes of the whole, when re-exported within three years, upon certificate that the duties were paid on importation, and oath of their identity. In some cases, a bounty is given on manufactured goods, when the materials from which they are manufactured have paid duty on importation; and manufactures subject to excise, have generally the whole or part of the excise duties returned.

8. The following goods are prohibited to be exported; white ashes, horns, unwrought hides of black cattle, tallow, corn, brass, copper, engines for knitting stockings, tools for cotton, linen, woollen, silk, iron and steel manufactures, wool, woolfells, woollen yarn, fullers earth, fulling clay, and tobacco-pipe clay.

9. The object of the laws respecting the corn trade is to encourage agriculture, by not only permitting the free exportation, but rewarding it with a bounty when the prices are low, and checking the importation by a heavy duty; and to prevent scarcity, by prohibiting the exportation when the prices are high, and permitting importation at an easy duty. Various temporary laws have been enacted for these purposes, and sometimes other expedients employed in times of scarcity, such as prohibiting the distillery from corn, and manufacture of starch.

10. Bounties are allowed on the exportation of refined sugar, sail-cloth, linen under limited prices, silk stuffs of British manufacture, cordage, spirits when barley is under 24s. beef, pork, and the following kinds of fish, salmon, herrings, pilchards, cod, ling, flake, and sprats.

Various other bounties are allowed for the encouragement of our fisheries. Ships from 150 to 300 tons employed in the Greenland whale fishery, and conforming to the regulations prescribed, are allowed 30s. per ton. Vessels employed in the herring fishery receive 20s. per ton, besides a bounty on the herrings caught and cured, amounting in some cases to 4s. per barrel. Other bounties are granted to a limited number of the most successful vessels employed in the herring and Newfoundland fisheries, and in the southern whale fishery.

It is unnecessary and impracticable, in this place, to enter into a full detail of our customhouse laws. Indeed, all that can be admitted into a work of this kind, must convey but very imperfect information; and even that little becomes useless in a short time from alterations in the law. We have therefore only marked the general outlines in the present article; which, however, will be sufficient to enable the reader to judge of the principles upon which the British legislature has acted. How far the means employed have contributed to the ends proposed, and how far the ends themselves are always wise; or whether a trade encumbered by fewer restrictions would not prove more extensive and beneficial; has often been a subject of discussion.

Mercantile Laws. The laws relating to commercial and

Mercantile Laws, Maritime Laws.

and maritime affairs approach nearer to uniformity through the different countries of Europe, than those on other subjects. Some of the fundamental regulations have been taken from the Roman law; others have been suggested by experience, during the progress of commerce; and the whole have been gradually reduced to a system, and adopted into the laws of trading nations, but with some local varieties and exceptions.

The British legislature has enacted many statutes respecting commerce; yet the greater part of our mercantile law is to be collected from the decisions of our courts of justice, founded on the custom of merchants. A proof of such custom, where no direct statute interferes, determines the controversy, and becomes a precedent for regulating like cases afterwards. The existence of a custom not formerly recognized, is, in England, determined by a jury of merchants.

The most common mercantile contracts are those between buyer and seller; between factor and employer; between partners; between the owners, masters, mariners, and freighters of ships; between insurers and the owners of the subject insured; and between the parties concerned in transacting bills of exchange. See FACTORAGE, SALE, PARTNERSHIP, INSURANCE, BILL, &c. and the next article.

Maritime Laws. The most ancient system of maritime laws is that of Rhodes, which was in force during the time of the Grecian empire, and afterwards incorporated into the Roman law. Although, in some parts, not applicable to the present state of trade, and, in others, now hardly intelligible, it contains the groundwork of the most equitable and beneficial rules observed in modern commerce. A like system was set forth by Richard I. of England, called the *Statutes of Oleron;* and another, by the town of Wisby, in the island of Gothland. From these systems, improved and enlarged in the course of time, our general maritime law is derived. The jurisdiction of matters purely maritime belongs, in England, to the court of admiralty, which proceeds on the civil law; but their proceedings are subject to the controul, and their decisions to the review, of the superior courts.

We shall here consider the obligations which subsist between the masters or owners of ships, the freighters, and the furnishers of provisions or repairs.

1. *Masters and Freighters.* A charter party is a contract between the master and freighters, in which the ship and voyage is described, and the time and conditions of performing it are ascertained.

The freight is most frequently determined for the whole voyage, without respect to time. Sometimes it depends on the time.

In the former case, it is either fixed at a certain sum for the whole cargo; or so much per ton, barrel bulk, or other weight or measure; or so much per cent. on the value of the cargo. This last is common on goods sent to America; and the invoices are produced to ascertain the value.

The burden of the ship is generally mentioned in the contract, in this manner, *one hundred tons, or thereby;* and the number mentioned ought not to differ above five tons, at most, from the exact measure. If a certain sum be agreed on for the freight of the ship, it must all be paid, although the ship, when measured, should prove less, unless the burden be *warranted.* If the ships be freighted for *transporting* cattle, or slaves, at so much a head, and some of them die on the passage, freight is only due for such as are delivered alive; but, if for *lading* them, it is due for all that were put on board. Maritime Laws.

When a whole ship is freighted, if the master suffers any other goods besides those of the freighter to be put on board, he is liable for damages.

It is common to mention the number of days that the ship shall continue at each port to load or unload. The expression used is, *work weather days;* to signify, that Sundays, holidays, and days when the weather stops the work, are not reckoned. If the ship be detained longer, a daily allowance is often agreed on, in name of *demurrage.*

If the voyage be completed in terms of the agreement, without any misfortune, the master has a right to demand payment of the freight before he delivers the goods. But if the safe delivery be prevented by any fault or accident, the parties are liable, according to the following rules.

If the merchant do not load the ship within the time agreed on, the master may engage with another, and recover damages.

If the merchant load the ship, and recal it after it has set sail, he must pay the whole freight; but if he unload it before it sets sail, he is liable for damages only.

If a merchant loads goods which it is not lawful to export, and the ship be prevented from proceeding on that account, he must pay the freight notwithstanding.

If the shipmaster be not ready to proceed on the voyage at the time agreed on, the merchant may load the whole, or part of the cargo, on board another ship, and recover damages; but chance, or notorious accident, by the marine law, releases the master from damages.

If an embargo be laid on the ship before it sails, the charter-party is dissolved, and the merchant pays the expence of loading and unloading; but if the embargo be only for a short limited time, the voyage shall be performed when it expires, and neither party is liable for damages.

If the shipmaster sails to any other port than that agreed on, without necessity, he is liable for damages; if through necessity, he must sail to the port agreed on, at his own expence.

If a ship be taken by the enemy, and retaken or ransomed, the charter-party continues in force.

If the master transfer the goods from his own ship to another, without necessity, and they perish, he is liable for the value; but if his own ship be in imminent danger, the goods may be put on board another ship at the risk of the owner.

If a ship be freighted out and home, and a sum agreed on for the whole voyage, nothing is due till it return; and the whole is lost if the ship be lost on the return.

If a certain sum be specified for the homeward voyage, it is due, although the factor abroad should have no goods to send home.

In the case of a ship freighted to Madeira, Carolina, and home, a particular freight fixed for the homeward

Maritime Laws.

ward voyage, and an option reserved for the factor at Carolina to decline it, unless the ship arrived before 1st of March: the shipmaster, foreseeing he could not arrive there within that time, and might be disappointed of a freight, did not go there at all. He was found liable in damages, as the obligation was absolute on his part, and conditional only on the other.

If the goods be damaged without fault of the ship or master, the owner is not obliged to receive them and pay freight, but he must either receive the whole, or abandon the whole; he cannot choose those that are in best order, and reject the others. If the goods be damaged through the insufficiency of the ship, the master is liable for the same; but, if it be owing to stress of weather, he is not accountable. It is customary for shipmasters, when they suspect damage, to take a *protest against wind and weather*, at their arrival. But as this is the declaration of a party, it does not bear credit, unless supported by collateral circumstances.

If part of the goods be thrown overboard, or taken by the enemy, the part delivered pays freight.

The shipmaster is accountable for all the goods received on board, by himself or mariners, unless they perish by the act of God, or of the king's enemies.

Shipmasters are not liable for leakage on liquors; nor accountable for the contents of packages, unless packed and delivered in their presence.

Upon a principle of equity, that the labourer is worthy of his hire, differences arising with regard to freight, when the case is doubtful, ought rather to be determined in favour of the shipmaster.

2. *Ship and Owners with Creditors.* When debts are contracted for provisions or repairs to a ship, or arise from a failure in any of the above-mentioned obligations, the ship and tackle, and the owners, are liable for the debt, as well as the master.

By the mercantile law, the owners are liable in all cases, without limitation; but by statute, they are not liable for embezzlement beyond their value of ship, tackle, and freight.

A shipmaster may pledge his ship for necessary repairs during a voyage; and this hypothecation is implied by the maritime law when such debts are contracted. This regulation is necessary, and is therefore adopted by all commercial nations; for, otherwise, the master might not find credit for necessary repairs, and the ship might be lost. If repairs be made at different places, the last are preferable.

The relief against the ship is competent to the court of admiralty in England, only when repairs are furnished during the course of a voyage; for the necessity of the case extends no further. If a ship be repaired at home (e. g. upon the river Thames), the creditor is only entitled to relief at common law.

The creditor may sue either the master or owners; but if he undertook the work on the special promise of the one, the other is not liable.

If the master buys provisions on credit, the owners are liable for the debt, though they have given him money to pay them.

If a ship be mortgaged, and afterwards lost at sea, the owners must pay the debt; for the mortgage is only an additional security, though there be no express words to that purpose in the covenant.

If a ship be taken by the enemy, and ransomed, the owners are liable to pay the ransom, though the ransomer die in the hands of the captors.

3. *Owners of ship and cargo with each other.* There is a mutual obligation which subsists between all the owners of a ship and cargo. In time of danger, it is often necessary to incur a certain loss of part for the greater security of the rest; to cut a cable; to lighten the ship, by throwing part of the goods overboard; to run it ashore; or the like: and as it is unreasonable that the owners of the thing exposed for the common safety should bear the whole loss, it is defrayed by an equal contribution among the proprietors of the ship, cargo, and freight. This is the famous *Lex Rhodia de jactu*, and is now called a *general average*.

The custom of valuing goods which contribute to a general average, is not uniform in all places. They are generally valued at the price they yield at the port of destination, charges deducted; and goods thrown overboard are valued at the price they would have yielded there. Sailors wages, clothes and money belonging to passengers, and goods belonging to the king, pay no general average; but proprietors of gold and silver, in case of goods being thrown overboard, contribute to the full extent of their interest.

The following particulars are charged as general average: Damage sustained in an engagement with the enemy; attendance on the wounded, and rewards given for service in time of danger, or gratuities to the widows or children of the slain; ransom; goods given to the enemy in the nature of a ransom; charges of bringing the ship to a place of safety when in danger from the enemy, or waiting for convoy; charges of quarantine; goods thrown overboard; masts or rigging cut; holes cut in the ship to clear it of water; pilotage, when a leak is sprung; damage, when voluntarily run aground, and expence of bringing it afloat; goods lost by being put in a lighter; the long boat lost in lightening the ship in time of danger; hire of cables and anchors; charges of laying in ballast, victualling, and guarding the ship when detained; charges at law, in reclaiming the ship and cargo; interest and commission on all these disbursements.

Though goods put on board a lighter, and lost, are charged as a general average; yet if the lighter be saved, and the ship with the rest of the goods be lost, the goods in the lighter belong to their respective proprietors, without being liable to any contribution.

If part of the goods be plundered by a pirate, the proprietor or shipmaster is not entitled to any contribution.

The essential circumstances that constitute a general average are these; the loss must be the effect of a voluntary action; and the object of that action the common safety of the whole. Quarantine, which is allowed, seems not to fall within this description.

4. *Quarantine.* See QUARANTINE.
5. *Wrecks.* See WRECK.
6. *Impress.* See IMPRESSING.
7. *Insurance.* See INSURANCE.

Game-

Game-Laws.

Game-Laws. See the article Game.

Sir William Blackstone, treating of the alterations in our laws, and mentioning franchises granted of chase and free warren, as well to preserve the breed of animals, as to indulge the subject, adds, "From a similar principle to which, though the forest laws are now mitigated, and by degrees grown entirely obsolete; yet from this root has sprung a *bastard slip*, known by the name of the *game law*, now arrived to and wantoning in its highest vigour: both founded upon the same unreasonable notion of permanent property in wild creatures; and both productive of the same tyranny to the commons; but with this difference, that the forest laws established only one mighty hunter throughout the land; *the game laws have established a little* Nimrod *in every manor*. And in one respect the ancient law was much less unreasonable than the modern; for the king's grantee of a chase or free warren, might kill game in every part of his franchise; but now, though a freeholder of less than 100l. a year *is forbidden to kill partridge upon his own estate*, yet nobody else (not even the lord of the manor, unless he hath a grant of free warren) can do it without *committing a trespass* and *subjecting himself to an action*.

Under the article Game, the destroying such beasts and fowls as are ranked under that denomination, was observed (upon the old principles of the forest law) to be a trespass and offence in all persons alike, who have not authority from the crown to kill game (which is royal property) by the grant of either a free warren, or at least a manor of their own. But the laws called the *game laws* have also inflicted additional punishments (chiefly pecuniary) on persons guilty of this general offence, unless they be people of such rank or fortune as is therein particularly specified. All persons, therefore, of what property or distinction soever, that kill game out of their own territories, or even upon their own estates, without the king's licence expressed by the grant of a franchise, are guilty of the first original offence of encroaching on the royal prerogative. And those indigent persons who do so, without having such rank or fortune as is generally called a *qualification*, are guilty, not only of the original offence, but of the aggravations also created by the statutes for preserving the game: which aggravations are so severely punished, and those punishments so implacably inflicted, that the offence against the king is seldom thought of, provided the miserable delinquent can make his peace with the lord of the manor. The only rational footing upon which this offence, thus aggravated, can be considered as a crime, is, that in low and indigent persons it promotes idleness, and takes them away from their proper employments and callings: which is an offence against the public police and economy of the commonwealth.

The statutes for preserving the game are many and various, and not a little obscure and intricate; it being remarked, that in one statute only, 5 Ann. c. 14. there is false grammar in no fewer than six places, besides other mistakes: the occasion of which, or what denomination of persons were probably the penners of these statutes, it is unnecessary here to inquire. It may be in general sufficient to observe, that the *qualifications* for killing game, as they are usually called, or more properly the exemptions from the penalties inflicted by the statute law, are, 1. The having a freehold estate of 100l. per annum; there being fifty times the property required to enable a man to kill a partridge, as to vote for a knight of the shire. 2. A leasehold for 99 years of 150l. per annum. 3. Being the son and heir apparent of an esquire (a very loose and vague description) or person of superior degree.—4. Being the owner or keeper of a forest, park, chase, or warren. For unqualified persons transgressing these laws, by killing game, keeping engines for that purpose, or even having game in their custody, or for persons (however qualified) that kill game or have it in possession, at unseasonable times of the year, or unseasonable hours of the day or night, on Sundays or on Christmas day, there are various penalties assigned, corporal and pecuniary, by different statutes (after mentioned), on any of which, but only on one at a time, the justices may convict in a summary way, or (in most of them) prosecutions may be carried on at the assizes. And, lastly, by statute 28 Geo. II. c. 12. no person, however qualified to kill, may make merchandise of this valuable privilege, by selling or exposing to sale any game, on pain of like forfeiture as if he had no qualification.

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The statutes above referred to are as follow: No person shall take pheasants or partridges with engines in another man's ground, without license, on pain of 10l. stat. 11 Hen. VIII. c. 13. If any person shall take or kill any pheasants or partridges with any net in the night time, they shall forfeit 20s. for every pheasant, and 10s. for every partridge taken: and hunting with spaniels in standing corn, incurs a forfeiture of 40s. 23 Eliz. c. 10. Those who kill any pheasant, partridge, duck, heron, hare, or other game, are liable to a forfeiture of 20s. for every fowl and hare; and selling or buying to sell again, any hare, pheasant, &c. the forfeiture is 10s. for each hare, &c. 1 Jac. I. c. 17. Also pheasants or partridges are not to be taken between the first of July and the last of August, on pain of imprisonment for a month, unless the offenders pay 20s. for every pheasant, &c. killed: and constables, having a justice of peace's warrant, may search for game and nets, in the possession of persons not qualified by law to kill game or to keep such nets, 1 Jac. I. c. 11. Constables, by a warrant of a justice of peace, are to search houses of suspected persons for game: and if any game be found upon them, and they do not give a good account how they came by the same, they shall forfeit for every hare, pheasant, or partridge, not under 5s. nor exceeding 20s. And inferior tradesmen hunting, &c. are subject to the penalties of the act, and may likewise be sued for trespass. If officers of the army or soldiers kill game without leave, they forfeit 5l. an officer, and 10s. a soldier; 4 and 5 W. and M. c. 23. Higglers, chapmen, carriers, innkeepers, victuallers, &c. having in their custody hare, pheasant, partridge, heath game, &c. (except sent by some person qualified to kill game), shall forfeit for every hare and fowl 5l. to be levied by distress and sale of their goods, being proved by one witness, before a justice; and for want of distress shall be committed to the house of correction for three months: one moiety of the forfeiture to the informer, and the other to the poor. And selling game, or offering the same to sale, incurs the like penalty; wherein

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in hare and other game found in a shop, &c. is adjudged an exposing to sale: killing hares in the night is liable to the same penalties: and if any persons shall drive wild fowls with nets, between the first day of July and the first of September, they shall forfeit 5s. for every fowl; 5 Ann. c. 14. 9 Ann. c. 25. If any unqualified person shall keep a gun, he shall forfeit 10l.; and persons being qualified may take guns from those that are not, and break them; 21 and 22 Car. II. c. 25. and 33 Hen. VIII. c. 6. One justice of peace, upon examination and proof of the offence, may commit the offender till he hath paid the forfeiture of 10l. And persons, not qualified by law, keeping dogs, nets, or other engines to kill game, being convicted thereof before a justice of peace, shall forfeit 5l. or be sent to the house of correction for three months; and the dogs, game, &c. shall be taken from them, by the statute 5 Ann. If a person hunt upon the ground of another, such other person cannot justify killing of his dogs, as appears by 2 Roll. Abr. 567. But it was otherwise adjudged, Mich. 33 Car. II. in C. B. 2 Cro. 44. and see 3 Lev. xxviii. In actions of debt, *qui tam*, &c. by a common informer on the statute 5 Ann. for 15l. wherein the plaintiff declared on two several counts, one for 10l. for killing two partridges, the other for 5l. for keeping an engine to destroy the game, not being qualified, &c. the plaintiff had a verdict for 5l. only: this action was brought by virtue of the stat. 8 Geo. I. See stat. 9 Geo. I. c. 22. See likewise 24 Geo. II. c. 34. for the better preservation of the game in Scotland. By the stat. 26 Geo. II. c. 2. all suits and actions brought by virtue of stat. 8 Geo. I. c. —— for the recovery of any pecuniary penalty, or sum of money, for offences committed against any law for the better preservation of the game, shall be brought before the end of the second term after the offence committed.

By 28 Geo. II. c. 12. persons selling, or exposing to sale, any game, are liable to the penalties inflicted by 5 Ann. c. 14. on higglers, &c. offering game to sale: and game found in the house or possession of a poulterer, salesman, fishmonger, cook, or pastry cook, is deemed exposing thereof to sale.

By 2 Geo. III. c. 19. after the first June 1762, no person may take, kill, buy or sell, or have in his custody, any partridge between 12th February and 1st September, or pheasant between 1st February and 1st October, or heath fowl between 1st January and 20th August, or grouse between 1st December and 25th July, in any year; pheasants taken in their proper season, and kept in mews or breeding places, excepted: and persons offending in any of the cases aforesaid, forfeit 5l. per bird, to the prosecutor, to be recovered, with full costs, in any of the courts at Westminster. By this act, likewise, the whole of the pecuniary penalties under the 8 Geo. I. c. 19. may be sued for, and recovered to the sole use of the prosecutor, with double costs; and no part thereof to go to the poor of the parish.

By 5 Geo. III. c. 14. persons convicted of entering warrens in the night-time, and taking or killing coneys there, or aiding or assisting therein, may be punished by transportation, or by whipping, fine, or imprisonment. Persons convicted on this act, not liable to be convicted under any former act. This act does not extend to the destroying coneys in the day time, on the sea and river banks in the county of Lincoln, &c. No satisfaction to be made for damages occasioned by entry, unless they exceed 1s. It may not be improper to mention an act lately made, and not yet repealed, viz. 10 Geo. III. c. 19. for preservation of the game, which shows the importance of the object. It is thereby enacted, That if any person kill any hare, &c. between sunsetting and sunrising, or use any gun, &c. for destroying game, he shall for the first offence be imprisoned for any time not exceeding six nor less than three months: if guilty of a second offence, after conviction of a first, to be imprisoned for any time not exceeding 12 months nor less than six; and shall also within three days after the time of his commitment, either for the first or for any other offence, be once publicly whipped.

By 25 George III. c. 50. and 31 George III. c. 21. every person in Great Britain (the royal family excepted), who shall, after July 1. 1785, use any dog, gun, net, or other engine, for the taking or destruction of game (not acting as gamekeeper), shall deliver in a paper or account in writing, containing his name and place of abode, to the clerk of the peace or his deputy, and annually take out a certificate thereof; and every such certificate shall be charged with a stamp duty of 2l. 2s. (and an additional 1l. 1s. by 31 George III. c. 21.) making in the whole 3l. 3s.—Every deputation of a gamekeeper shall be registered with the clerk of the peace, and such gamekeeper shall annually take out a certificate thereof; which certificate shall be charged with a stamp duty of 10s. 6d. (and an additional 10s. 6d. by 31 Geo. III. c. 21.), making in the whole 1l. 1s.—The duties to be under the management of the commissioners of the stamp office.

From and after the said 1st of July 1785, the clerk of the peace shall annually deliver to persons requiring the same, duly stamped, a certificate or license according to the form therein mentioned, for which he shall be entitled to demand 1s. for his trouble; and on refusal or neglect to deliver the same, forfeit 20l.—Every certificate to bear date the day when issued, and to continue in force to the 1st day of July then following, on penalty of 20l.

After the 1st day of July 1785, any person that shall use any grehound, hound, pointer, setting dog, spaniel, or other dog, or any gun, net, or engine, for taking or killing of game, without a certificate, is liable to the penalty of 20l. And if any gamekeeper shall, for the space of 20 days after the said 1st day of July, or if any gamekeeper thereafter to be appointed shall, for the space of 20 days next after such appointment, neglect or refuse to register his deputation and take out a certificate thereof, he is liable to the penalty of 20l.

The clerks of the peace are to transmit to the stamp office in London alphabetical lists of the certificates granted in every year before the first day of August under penalty of 20l. These lists are to be kept at the stamp office in London, and there to be inspected on payment of 1s.: And the commissioners of the stamp duties are, once or oftener in every year, as soon as such lists are transmitted to them, to cause the same to be published in the newspapers circulating in each county, or such public paper as they shall think most proper.

Game Laws.

Gamekeepers were first introduced by the qualification act, 22 and 23 Car. II. c. 25. and subsequent statutes have made a number of various regulations respecting them. This authorises lords of manors of the degree of esquire, to appoint gamekeepers, who shall have power, within the manor, to seize guns, nets, and engines, kept by unqualified persons to destroy game.

By 5 Ann. c. 14. s. 14. lords and ladies of manors are authorised to empower their gamekeepers to *kill* game; but prohibited the latter, under pain of three months imprisonment, from selling or disposing of the game so killed, without the consent of the lord or lady, under whose appointment they acted.

By 3 Geo. I. c. 11. no lord of a manor is to appoint any person to be a gamekeeper with power to take and kill game, unless such person be qualified by law so to do, or be truly and properly a servant to the lord, or immediately employed to take or kill game, for the sole use or benefit of the said lord. Offences against this act to be punished with pecuniary fines.

Gamekeepers are enumerated among the different descriptions of servants chargeable with the duty under 25 Geo. III. c. 43.

If any gamekeeper, who shall have registered his deputation, and taken out a certificate thereof, shall be changed, and a new gamekeeper appointed in his stead, the first certificate is declared null and void, and the person acting under the same, after notice, is liable to the penalty of 20l. And any person in pursuit of game, who shall refuse to produce his certificate, or to tell his name or place of abode, or shall give in any false or fictitious name or place of abode to any person requiring the same, who shall have obtained a certificate, is liable to the penalty of 50l.

The certificates are not to authorise persons to kill game at any time prohibited by law, nor to give any person any right to kill game, unless such person shall be qualified so to do by the laws now in being, but shall be liable to the same penalties as if this act had not passed. [So that though by this act qualified and unqualified persons are equally included, yet having a certificate does not give an unqualified person a right to kill game: the point of right still stands upon the former acts of parliament; and any unqualified person killing game without a certificate, is not only liable to the penalty inflicted by this act, but also to all the former penalties relating to the killing of game, &c.]

Witnesses refusing to appear on justices summons, or appearing and refusing to give evidence, forfeit 10l. The certificates obtained under deputations, not to be given in evidence for killing of game by a gamekeeper out of the manor, in respect of which such deputation or appointments was given and made. Persons counterfeiting stamps to suffer death as felons.

Penalties exceeding 20l. are to be recovered in any of his majesty's courts of record at Westminster; and penalties not exceeding 20l. are recoverable before two justices, and may be levied by distress. The whole of the penalties go to the informer.

By 40 Geo. III. c. 50. persons to the number of two or more, found in any field, &c. or other open or inclosed ground, between eight at night and six in the morning, from the first day of October to the first of February, or between the hours of ten at night and four in the morning, from 1st February to first October, in each and every year, having any gun or engine to kill or take any hare, pheasant, partridge, heathfowl, commonly called *black game*, or grous, commonly called *red game*, or any other game; or persons aiding them with offensive weapons, may be apprehended, and, on conviction before a justice, shall be deemed rogues and vagabonds, within the meaning of 17 Geo. III. c. 5. &c.

Law.

Military Law. See MILITARY and MARINE.

LAW, JOHN, the famous projector, was the eldest son of a goldsmith in Edinburgh, by Elizabeth Campbell, heiress of Laurieston near that city; and was born about the year 1681. He was bred to no business; but possessed great abilities, and a very fertile invention. He had the address, when but a very young man, to recommend himself to the king's ministers in Scotland to arrange the revenue accounts, which were in great disorder at the time of settling the equivalent before the union of the kingdoms. The attention of the Scottish parliament being also turned to the contrivance of some means for supplying the kingdom with money, and facilitating the circulation of specie, for want of which the industry of Scotland languished; he proposed to them, for these purposes, the establishment of a bank of a particular kind, which he seems to have imagined might issue paper to the amount of the whole value of all the lands in the country: but this scheme the parliament by no means thought it expedient to adopt.

His father dying about the year 1704, Law succeeded to the small estate of Laurieston; but the rents being insufficient for his expences, he had recourse to gaming. He was tall and graceful in his person, and much addicted to gallantry and finery; and giving a sort of ton at Edinburgh, he went commonly by the name of *Beau Law*. He was forced to fly his country, however, in the midst of his career, in consequence of having fought a duel and killed his antagonist; and in some of the French literary gazettes it is said that he run off with a married lady. In his flight from justice he visited Italy; and was banished from Venice and Genoa, because he contrived to drain the youth of these cities of their money, by his superiority in calculation, that is, by being a cheat and a sharper. He wandered over all Italy, living on the event of the most singular bets and wagers, which seemed to be advantageous to those who were curious after novelty; but which were always of the most certain success with regard to him. He arrived at Turin, and proposed his system to the duke of Savoy, who saw at once, that, by deceiving his subjects, he would in a short time have the whole money of the kingdom in his possession: but that sagacious prince asking him how his subjects were to pay their taxes when all their money should be gone, Law was disconcerted, not expecting such a question.

Having been banished from Italy, and thus repulsed at Turin, Law proceeded to Paris, where he was already known as a projector. In the lifetime of Louis XIV. he had transmitted his schemes to Desmarest and to Chamillard, who had rejected them as dangerous innovations. He now proposed them to the Duc d'Orleans, who desired Noailles to examine them, to be as favourable in his report as possible, and

Law. to remark such of them as were practicable. Noailles called in the assistance of several merchants and bankers, who were averse to the system. Law then proposed the establishment of a bank, composed of a company, with a stock of six millions. Such an institution promised to be very advantageous to commerce. An arret of the 2d March 1716 established this bank, by authority, in favour of Law and his associates; two hundred thousand shares were instituted of one thousand livres each; and Law deposited in it to the value of two or three thousand crowns which he had accumulated in Italy, by gaming or otherwise. This establishment very much displeased the bankers, because at the beginning business was transacted here at a very small premium, which the old financiers had charged very highly. Many people had at first little confidence in this bank; but when it was found that the payments were made with quickness and punctuality, they began to prefer its notes to ready money. In consequence of this, shares rose to more than 20 times their original value; and in 1719 their valuation was more than 80 times the amount of all the current specie in the kingdom. But the following year, this great fabric of false credit fell to the ground, and almost overthrew the French government, ruining some thousands of families; and it is remarkable, that the same desperate game was playing by the South sea directors in England, in the same fatal year, 1720. Law being exiled as soon as the credit of his projects began to fail, retired to Venice, where he died in 1729.

The principles upon which Law's original scheme was founded, are explained by himself in *A Discourse concerning Money and Trade*, which he published in Scotland where (as we have seen) he first proposed it. "The splendid but visionary ideas which are set forth in that and some other works upon the same principles (Dr Adam Smith observes), still continue to make an impression upon many people, and have perhaps in part contributed to that excess of banking which has of late been complained of both in Scotland and in other places."

LAW, Edmund, D. D. bishop of Carlisle, was born in the parish of Cartmel in Lancashire, in the year 1703. His father, who was a clergyman, held a small chapel in that neighbourhood; but the family had been situated at Askham, in the county of Westmoreland. He was educated for some time at Cartmel school, afterwards at the free grammar school at Kendal; from which he went, very well instructed in the learning of grammar schools, to St John's college in Cambridge.

Soon after taking his first degree, he was elected fellow of Christ college in that university. During his residence in which college, he became known to the public by a translation of Archbishop King's Essay upon the Origin of Evil, with copious notes; in which many metaphysical subjects, curious and interesting in their own nature, are treated of with great ingenuity, learning, and novelty. To this work was prefixed, under the name of a preliminary dissertation, a very valuable piece, written by the reverend Mr Gay of Sidney college. Our bishop always spoke of this gentleman in terms of the greatest respect. In the Bible, and in the writings of Mr Locke, no man, he used to say, was so well versed.

He also, whilst at Christ college, undertook and went through a very laborious part in preparing for the press an edition of Stephens's Thesaurus. His acquaintance, during this his first residence in the university, was principally with Dr Waterland, the learned master of Magdalen college; Dr Jortin, a name known to every scholar; and Dr Taylor, the editor of the Demosthenes. Law.

In the year 1737 he was presented by the university to the living of Graystock in the county of Cumberland, a rectory of about 300l. a year. The advowson of this benefice belonged to the family of Howards of Graystock, but devolved to the university, for this turn, by virtue of an act of parliament, which transfers to these two bodies the nomination to such benefices as appertain, at the time of the vacancy, to the patronage of a Roman Catholic. The right, however, of the university was contested; and it was not till after a law suit of two years continuance that Mr Law was settled in his living. Soon after this, he married Mary the daughter of John Christian, Esq. of Unerigg, in the county of Cumberland; a lady whose character is remembered with tenderness and esteem by all who knew her.

In 1743, he was promoted by Sir George Fleming, bishop of Carlisle, to the archdeaconry of that diocese; and in 1746 went from Graystock to reside at Salkeld, a pleasant village upon the banks of the river Eden, the rectory of which is annexed to the archdeaconry. Mr Law was not one of those who lose and forget themselves in the country. During his residence at Salkeld, he published Considerations on the Theory of Religion: to which were subjoined, Reflections on the Life and Character of Christ; and an Appendix concerning the use of the words Soul and Spirit in holy Scripture, and the state of the dead there described.

Dr Keene held at this time, with the bishopric of Chester, the mastership of Peterhouse in Cambridge. Desiring to leave the university, he procured Dr Law to be elected to succeed him in that station. This took place in the year 1756; in which year Dr Law resigned his archdeaconry in favour of Mr Eyre, a brother-in-law of Dr Keene. Two years before this, he had proceeded to his degree of doctor of divinity: in his public exercise for which, he defended the doctrine of what is usually called the "sleep of the soul."

About the year 1760, he was appointed head librarian of the university; a situation which, as it procured an easy and quick access to books, was peculiarly agreeable to his taste and habits. Some time after this, he was also appointed casuistical professor. In the year 1762, he suffered an irreparable loss by the death of his lady; a loss in itself every way afflicting, and rendered more so by the situation of his family, which then consisted of eleven children, many of them very young. Some years afterwards, he received several preferments, which were rather honourable expressions of regard from his friends, than of much advantage to his fortune.

By Dr Cornwallis, then bishop of Litchfield, afterwards archbishop of Canterbury, who had been his pupil at Christ college, he was appointed to the archdeaconry of Staffordshire, and to a prebend in the church of Litchfield. By his old acquaintance Dr Green, bishop of Lincoln, he was made a prebendary of

Law. of that church. But in the year 1767, by the intervention of the duke of Newcastle, to whose interest in the memorable contest for the high stewardship of the university, he had adhered in opposition to some temptations, he obtained a stall in the church of Durham. The year after this, the duke of Grafton, who had a short time before been elected chancellor of the university, recommended the master of Peterhouse to his majesty for the bishopric of Carlisle. This recommendation was made not only without solicitation on his part or that of his friends, but without his knowledge, until the duke's intention in his favour was signified to him by the archbishop.

About the year 1777, Bishop Law gave to the public a handsome edition, in three volumes quarto, of the works of Mr Locke, with a Life of the Author, and a Preface. Mr Locke's writings and character he held in the highest esteem, and seems to have drawn from them many of his own principles: He was a disciple of that school. About the same time he published a tract, which engaged some attention in the controversy concerning subscription; and he published new editions of his two principal works, with considerable additions, and some alterations.

Dr Law held the see of Carlisle almost 19 years; during which time he twice only omitted spending the summer months in his diocese at the bishop's residence at Rose Castle; a situation with which he was much pleased, not only on account of the natural beauty of the place, but because it restored him to the country in which he had spent the best part of his life. In the year 1787 he paid this visit in a state of great weakness and exhaustion: and died at Rose Castle about a month after his arrival there, on the 14th day of August, and in the 84th year of his age.

The life of the bishop of Carlisle was a life of incessant reading and thought, almost entirely directed to metaphysical and religious inquiries. Besides the works already mentioned, he published, in 1734 or 1735, a very ingenious *Inquiry into the Ideas of Space and Time*, &c. in which he combats the opinions of Dr Clarke and his adherents on these subjects: but the tenet by which his name and writings are principally distinguished, is "that Jesus Christ, at his second coming, will, by an act of his power, restore to life and consciousness the dead of the human species, who by their own nature, and without this interposition, would remain in the state of insensibility to which the death brought upon mankind by the sin of Adam had reduced them." He interpreted literally that saying of St Paul, 1 Cor. xv. 21. "As by man came death, by man came also the resurrection of the dead." This opinion had no other effect upon his own mind than to increase his reverence for Christianity, and for its divine Founder. He retained it, as he did his other speculative opinions, without laying, as many are wont to do, an extravagant stress upon their importance, and without pretending to more certainty than the subject allowed of. No man formed his own conclusions with more freedom, or treated those of others with greater candour and equity. He never quarrelled with any person for differing from him, or considered that difference as a sufficient reason for questioning any man's sincerity, or judging meanly of his understanding. He was zealously attached to religious liberty, because he thought that it leads to truth; yet from his heart he loved peace. But he did not perceive any repugnancy in these two things. There was nothing in his elevation to his bishopric which he spoke of with more pleasure, than its being a proof that decent freedom of inquiry was not discouraged. Law ‖ Lawless.

He was a man of great softness of manners, and of the mildest and most tranquil disposition. His voice was never raised above its ordinary pitch. His countenance seemed never to have been ruffled; it preserved the same kind and composed aspect, truly indicating the calmness and benignity of his temper. He had an utter dislike of large and mixed companies. Next to his books, his chief satisfaction was in the serious conversation of a literary companion, or in the company of a few friends. In this sort of society he would open his mind with great unreservedness, and with a peculiar turn and sprightliness of expression. His person was low, but well formed: his complexion fair and delicate. Except occasional interruptions by the gout, he had for the greatest part of his life enjoyed good health; and when not confined by that distemper, was full of motion and activity. About nine years before his death, he was greatly enfeebled by a severe attack of the gout in his stomach; and a short time after that, lost the use of one of his legs. Nothwithstanding his fondness of exercise, he resigned himself to this change, not only without complaint, but without any sensible diminution of his cheerfulnes and good humour. His fault (for we are not writing a panegyric) was the general fault of retired and studious characters, too great a degree of inaction and facility in his public station. The modesty, or rather bashfulness of his nature, together with an extreme unwillingness to give pain, rendered him sometimes less firm and efficient in the administration of authority than was requisite. But it is the condition of human morality. There is an opposition between some virtues which seldom permits them to subsist together in perfection.

The bishop was interred in his cathedral church, in which a handsome monument is erected to his memory.

LAWBURROWS, in *Scots Law*. See LAW, Part III. N° clxxviii. 16.

LAWENBURG, Duchy of, a territory of Germany, in the circle of Lower Saxony, bounded by the dutchy of Holstein on the north and west, by the duchy of Mecklenburg on the east, and by the duchy of Lunenburg, from which it is separated by the river Elbe, on the west; being about 85 miles long, and 20 broad. The chief towns are Lawenburg, Molen, Wittemburg, and Ratzeburg. It came into the possession of Denmark in 1815.

LAWENBURG, a city of Germany in the circle of Lower Saxony, and capital of a duchy of the same name. It is a small but populous town, situated on the Elbe, under the brow of a very high hill, from whence there is a delightful prospect over the adjacent country. It has a castle on an eminence, and is convenient for trade. E. Long. 10. 48. N. Lat. 53. 22.

LAWENBURG, a town of Germany in Farther Pomerania, and the chief place to the territory of the same name belonging to the elector of Brandenburg.

LAWLESS COURT, a court said to be held annually on the King's Hill at Rochford in Essex, on the

Lawless || Lawrence.

Wednesday morning after Michaelmas day at cock-crowing, where they whisper, and have no candle, nor any pen and ink, but only a coal. Persons who owe suit, or service, and do not appear, forfeit double their rent every hour they are missing.

This servile attendance, Camden informs us, was imposed on the tenants for conspiring at the like unseasonable hour to raise a commotion. The court belongs to the honour of Raleigh, and to the earl of Warwick; and is called *lawless*, from its being held at an unlawful hour.

LAWINGEN, a town of Germany, in the circle of Suabia; formerly imperial, but now subject to the duke of Neuburg. Here the duke of Bavaria, in 1704, fortified his camp to defend his country against the British forces and their allies commanded by the duke of Marlborough, who forced their intrenchments. It is seated on the Danube, in E. Long. 10. 29. N. Lat. 48. 32.

LAWN, a spacious plain in a park, or adjoining to a noble seat. As to the dimensions of a lawn: In a large park, it should be as extensive as the ground will permit; and, if possible, it should never be less than 50 acres: but in gardens of a moderate extent, a lawn of 10 acres is sufficient: and in those of the largest size 15 acres. The best situation for a lawn is in the front of the house: and here, if the house front the east, it will be extremely convenient; but the most desirable aspect for a lawn is that of the south-east. As to the figure of the lawn, some recommend an exact square, others an oblong square, some an oval, and others, a circular figure: but neither of these are to be regarded. It ought to be so contrived, as to suit the ground; and there should be trees planted for shade on the boundaries of the lawn, so the sides may be broken by irregular plantations of trees, which, if there are not some good prospects beyond the lawn, should bound it on every side, and be brought round pretty near to each end of the house. If in these plantations round the lawn, the trees are placed irregularly, some breaking much forwarder on the lawn than others, and not crowded too close together, they will make a better appearance than any regular plantations can possibly do; and if there are variety of trees, properly disposed, they will have a good effect; but only those which make a fine appearance, and grow large, straight, and handsome, should be admitted here. The most proper trees for this purpose, are the elm, oak, chesnut, and beech; and if there are some clumps of evergreen trees intermixed with the others, they will add to the beauty of the whole, especially in the winter season; the best sorts for this purpose are Lord Weymouth's pine, and the silver and spruce firs.

LAWN, in manufactures, a fine sort of linen, remarkable for being used in the sleeves of the clerical dress of bishops.

LAWRENCE, St, the largest river in North America, proceeding from Lake Ontario, from which it runs a course of 700 miles to the Atlantic ocean.

From Lake Ontario to Montreal, this river has the name of Iroquois, and after taking a north-east course it embosoms the island of Montreal, above which it receives Ottawas from the west, forming several islands of great fertility. From Montreal it takes the name of St Lawrence, and passing by Quebec, it meets the tide more than 400 miles from the sea, and is so far navigable for large vessels. Having received in its course St John's, Seguina, Lesprairies, Trois Rivieres, and numberless other smaller streams, it falls into the ocean at Cape Rosieres, by a mouth about 90 miles broad. The principal entrance into the gulf of St Lawrence from the Atlantic ocean, is between Capes Ray and Breton. It contains a number of islands, viz. St John's, at its southern extremity, on the coast of New Brunswick and Nova Scotia; Anticosti, at the mouth of the St Lawrence, besides a number of small islands.

Lawrence || Layers.

Prince Edward's island, about 120 miles in length, with a population of 8000 persons, is also in the gulf of St Lawrence. Here a new settlement was made by Lord Selkirk, in 1803, composed of a colony of emigrants amounting to 800, from the Highlands of Scotland.

LAWSONIA, Egyptian Privet, a genus of plants belonging to the octandria class; and in the natural method ranking with those of which the order is doubtful. See Botany *Index*.

LAWYER, a counsellor, or one who is learned or skilled in the law. See Counsellor, Barrister, and Serjeant.

LAY, a kind of ancient poem among the French, consisting of very short verses.

There were two sorts of lays; the *great*, and the *little*. The first was a poem consisting of twelve couplets of verses, of different measures. The other was a poem consisting of sixteen or twenty verses, divided into four couplets.

These lays were the lyric poetry of the old French poets, who were imitated by some among the English. They were principally used on melancholy subjects, and are said to have been formed on the model of the trochaic verses of the Greek and Latin tragedies.

Father Morgues gives us an extraordinary instance of one of these ancient lays, in his Treatise of French Poetry.

Sur l'appuis du monde
Que faut il qu'on fonde
D'espoir?
Cette mer profonde
En debris feconde
Fait voir
Calme au matin, l'onde
Et l'orage y gronde
Le soir.

Lay-Brothers, among the Romanists, those pious but illiterate persons, who devote themselves at some convent to the service of the religious. They wear a different habit from that of the religious; but never enter into the choir, nor are present at the chapters; nor do they make any other vow except of constancy and obedience. In the nunneries there are also lay sisters.

Lay-Man, one who follows a secular employment, and has not entered into holy orders.

LAYERS, in *Gardening*, are tender shoots or twigs of trees, laid or buried in the ground, till, having struck root, they are separated from the parent tree, and become distinct plants.—The propagating trees by *layers* is done in the following manner: The branches of the trees are to be slit a little way, and laid under the

Layers of Lead.

the mould for about half a foot; the ground should be first made very light, and after they are laid they should be gently watered. If they will not remain easily in the position they are put in, they must be pegged down with wooden hooks: the best season for doing this is, for evergreens, toward the end of August, and, for other trees, in the beginning of February. If they are found to have taken root, they are to be cut off from the main plant the succeeding winter, and planted out. If the branch is too high from the ground, a tub of earth is to be raised to a proper height for it. Some pare off the rind, and others twist the branch before they lay it, but this is not necessary. The end of the layer should be about a foot out of the ground; and the branch may be either tied tight round with a wire, or cut upwards from a joint, or cut round for an inch or two at the place, and it is a good method to pierce several holes through it with an awl above the part tied with the wire.

LAYING THE LAND, in *Navigation*, the state of motion which increases the distance from the coast, so as to make it appear lower and smaller, a circumstance which evidently arises from the intervening convexity of the surface of the sea. It is used in contradistinction to *raising* the land, which is produced by the opposite motion of approach towards it. See LAND.

LAZAR HOUSE, or LAZARETTO, a public building, in the nature of an hospital, to receive the poor, and those afflicted with contagious distempers. In some places, lazarettos are appointed for the performance of quarantine; in which case, those are obliged to be confined in them who are suspected to have come from places infected with the plague.

LAYSTOFF, or LOWESTOFF, a town of Suffolk, 117 miles from London, seems to hang over the sea, and its chief business is fishing for cod in the North sea, and for herring, mackarel, and sprats, at home. The church is at some distance, but there is a chapel in the town. Having been a part of the ancient demesnes of the crown, this town has a charter and a seal, by the former of which the inhabitants are exempted from serving on juries. Some take this to be the most eastern part of Britain.

LAZULI, LAZULITE, or *Lapis Lazuli*, a species of mineral belonging to the siliceous genus. See LAZULITE, MINERALOGY *Index*.

LEACHLADE, a town of Gloucestershire, 12 miles east from Cirencester, 29 miles from Gloucester, and 77 from London. The river Thames waters it on the south and east sides, and divides it from Wiltshire and Berkshire. The Leach runs through the north side of the parish. The Thames river is navigable for barges of 50 tons burden, but want of water during part of the year makes the navigation very uncertain. The church is a large handsome building with double aisles, supported by two rows of fluted pillars.

LEAD, one of the metals, of a white colour inclining to blue, the least ductile, the least elastic, and the least sonorous, of the whole, but possessing a considerable degree of specific gravity. See CHEMISTRY and MINERALOGY *Index*.

White Lead, or *Ceruse*. See CHEMISTRY *Index*.

Black Lead, or *Plumbago*, a species of mineral belonging to the class of *Inflammables*. See GRAPHITE, MINERALOGY *Index*.

Lead, Leaf.

Milled Lead. See CHEMISTRY *Index*.

Poison of Lead. See POISON.

Sheet Lead. See PLUMBERY.

LEAF, a part of a plant extended into length and breadth, in such a manner as to have one side distinguishable from the other. This is Miller's definition. Linnæus denominated leaves "the organs of motion, or muscles of the plant."—The leaves are not merely ornamental to plants; they serve very useful purposes, and make part of the organs of vegetation.

The greater number of plants, particularly trees, are furnished with leaves: in mushrooms, and shrubby horse tail, they are totally wanting. Ludwic defines leaves to be fibrous and cellular processes of the plant, which are of various figures, but generally extended into a plain membranaceous or skinny substance. They are of a deeper green than the footstalks on which they stand, and are formed by the expansion of the vessels of the stalk, among which, in several leaves, the proper vessels are distinguished by the particular taste, colour, and smell, of the liquors contained within them.

By the expansion of the vessels of the stalk, are produced several ramifications or branches, which, crossing each other mutually, form a kind of net: the meshes or interstices of which are filled up with a tender cellular substance, called the *pulp*, *pith*, or *parenchyma*. The pulpy substance is frequently consumed by certain small insects, whilst the membranous net remaining untouched exhibits the genuine skeleton of the leaf.

The net in question is covered externally with an epidermis or scarf skin, which appears to be a continuation of the scarf skin of the stalk, and perhaps of that of the stem. M. de Saussure, a judicious naturalist, has attempted to prove, that this scarf skin, like that of the petals, is a true bark, composed itself of an epidermis and cortical net; these parts seem to be the organs of perspiration, which serve to dissipate the superfluous juices.

The cortical net is furnished, principally on the surface of the leaf, with a great number of suckers or absorbent vessels, destined to imbibe the humidity of the air. The upper surface, turned towards heaven, serves as a defence to the lower, which looks downward; and this disposition is so essential to the vegetable economy, that, if a branch is overturned in such a manner as to destroy the natural direction of the leaves, they will, of themselves, in a very short time, resume their former position: and that as often as the branch is thus overturned.

Leaves, then, are useful and necessary organs; trees perish when totally divested of them. In general, plants stript of any of their leaves, cannot shoot vigorously: witness those which have undergone the depredations of insects; witness, likewise, the very common practice of stripping off some of the leaves from plants, when we would suspend their growth, or diminish the number of their shoots. This method is sometimes observed with corn and the esculent grasses; and, in cold years, is practised on fruit trees and vines, to render the fruit riper and better coloured: but in this

Leaf, League.

this case it is proper to wait till the fruits have acquired their full bulk, as the leaves contribute greatly to their growth, but hinder, when too numerous, that exquisite rectifying of the juices, which is so necessary to render them delicious and palatable.

When vegetation ceases, the organs of perspiration and inspiration become superfluous. Plants, therefore, are not always adorned with leaves: they produce new ones every year; and every year the greater part are totally divested of them, and remain naked during the winter.

Leaf Insect. See Cimex, Entomology *Index.*

Leaf-Skeletons. One help for acquiring a knowledge of the anatomy of plants, is the art of reducing leaves to skeletons, which may be done by exposing the leaves to decay for some time soaked in water, by which means the softer will be separated from the internal harder parts. By carefully wiping, pressing, and rinsing them, the harder parts may be obtained from the rest alone and entire. Some have been able to separate the outer covering on both sides from the woody net, and even to split the latter into two. A naturalist in the year 1645 first conceived the idea of making leaf-skeletons by employing decomposition for that purpose, assisting it by several ingenious operations of art. When the method of producing these skeletons was publicly known, numberless preparations of them were everywhere attempted. So much did leaf-skeletons afterwards engage the attention of philosophers, that one Seligmann wrote a treatise on the various methods which may be employed in their preparation.

The art also of raising trees from leaves has been long known, the first account of which was published by Agostino Mandirola, an Italian of the Franciscan order, who assures us that he produced trees from the leaves of the cedar and lemon tree. In the garden of Baron de Munchausen, a young tree was obtained from a leaf of the *limon à Rivo*, which yielded fruit the second year: It is more than probable that the multiplication of the *opuntia* or Indian fig, first suggested the idea of such experiments, for every joint of that plant when stuck into the earth, and properly nurtured, throws out roots and grows.

Leaf, in clocks and watches, an appellation given to the notches of their pinions.

Gold Leaf, usually signifies fine gold beaten into plates of exceeding thinness, which are employed in the arts of gilding, &c. See *Gold Leaf.*

LEAGUE, a measure of length, containing more or fewer geometrical paces, according to the different usages and customs of countries. A league at sea, where it is chiefly used by us, being a land measure mostly peculiar to the French and Germans, contains 3000 geometrical paces, or three English miles. The French league sometimes contains the same measure, and in some parts of France it consists of 3500 paces: the mean or common league consists of 2400 paces, and the little league of 2000. The Spanish leagues are larger than the French, 17 Spanish leagues making a degree, or 20 French leagues, or 69½ English statute miles. The Dutch and German leagues contain each four geographical miles. The Persian leagues are pretty near of the same extent with the Spanish; that is, they are equal to four Italian miles, which is pretty near to what Herodotus calls the length of the Persian parasang, which contained 30 stadia, eight whereof, according to Strabo, make a mile. The word comes from *leuca* or *leuga*, an ancient Gaulish word for an itinerary measure, and retained in that sense by the Romans. Some derive the word *leuca* from λευκος, "white;" as the Gauls, in imitation of the Romans, marked the spaces and distances of their roads with white stones.

League ‖ Leak.

League also denotes an alliance or confederacy between princes and states for their mutual aid, either in attacking some common enemy, or in defending themselves. The word comes from *liga*, which, in the corrupt Latin, was used for a *confederacy*: *Qua quis cum alio ligatur.*

Leagues, among the Greeks, were of three sorts: 1. Σπονδη, Συνθηκη, or Ειρηνη, whereby both parties were obliged to cease from hostilities, without even molesting the allies of each other; 2. Επιμαχια, whereby they engaged to lend assistance to each other in case of invasion; and, 3. Συμμαχια, whereby they engaged to have the same friends and enemies, and to assist each other upon all occasions. All these leagues were confirmed with oaths, and imprecations, and sacrifices. The victims most generally used were a boar, ram, or goat, sometimes all three; and sometimes bulls and lambs. They cut out the testicles of the animal, and stood upon them while they swore; and some of the hair of the victim was distributed to all present. Then they cut the animal's throat, which was called ορκια τεμνειν, in Latin, *ferire fœdus.* This done, they repeated their oaths and imprecations, calling the gods to witness the honesty of their intentions. A libation was then made of wine, which at this time was mixed, to imply their conjunction and union; while this was pouring out, they prayed that the blood of him who should break the treaty might be poured out in like manner. Upon these occasions no part of the victim was eaten. Still further to increase the solemnity of this obligation, the league was engraven upon brass, fixed up in places of public concourse, and sometimes read at the solemn games. Some exchanged certain συμβολα, or *tesseræ*, upon the occasion, and frequently sent ambassadors on some appointed day, to keep them in mind of their engagements to each other.

The ceremonies of the Romans in making leagues were performed by the *Feciales.* See Fecialis.

Leagues of the Grisons, are a part of Switzerland, consisting of three subdivisions, viz. the upper league, the league of the house of God, and the league of the ten jurisdictions. See the article Grisons.

The League, by way of eminence, denotes that famous one on foot in France, from the year 1576 to 1593. Its intent was to prevent the succession of Henry IV. who was of the reformed religion, to the crown; and it ended with his abjuration of that faith.

The *leaguers*, or confederates, were of three kinds. The *zealous leaguers* aimed at the utter destruction not only of the Huguenots, but also of the ministry. The *Spanish leaguers* had principally in view the transferring the crown of France to the king of Spain, or the infanta his daughter. The *moderate leaguers* aimed only at the extirpation of Calvinism, without any alteration of the government.

LEAK, at sea, is a hole in the ship, through which the water comes in. A ship is said to *spring a leak* when

Leak ‖ Leake.

when she begins to *leak* or to let in the water. The manner of stopping a leak is to put into it a plug wrapped in oakum and well tarred, or in a tarpawling clout, which keeps out the water, or nailing a piece of sheet lead on the place. Seamen sometimes stop a leak by thrusting a piece of salt beef into it. The sea water, says Mr Boyle, being fresher than the brine imbibed by the beef, penetrates into its body, and causes it to swell so as to bear strongly against the edges of the broken plank, and thereby stops the influx of the water. A ready way to find a leak in a ship is to apply the narrower end of a speaking trumpet to the ear, and the other to the side of the ship where the leak is supposed to be; then the noise of the water issuing in at the leak will be heard distinctly, whereby it may be discovered.

LEAKAGE, the state of a vessel that leaks, or lets water or other liquid ooze in or out.

LEAKAGE, in commerce, is an allowance of 12 per cent. in the customs, allowed to importers of wines for the waste or damage it is supposed to have received in the passage: an allowance of two barrels in 22 is also made to the brewers of ale and beer by the excise office.

LEAKE, RICHARD, master gunner of England, was born at Harwich in 1629, and was bred to the sea. At the Restoration, he was made master gunner of the Princess, a frigate of 50 guns; and in the first Dutch war distinguished himself by his skill and bravery in two extraordinary actions; one against 15 sail of Dutch men of war; and another in 1667 against two Danes in the Baltic, in which the commanding officers of the Princess being killed or desperately wounded ed, the command, according to the rules of war at that time, fell to the gunner. In 1669, he was promoted to be gunner of the Royal Prince, a first rate man of war. He was engaged, with his two sons, Henry and John, in the battle against Van Tromp, in 1673; when the Royal Prince had all her masts shot away, near 400 of her men killed and disabled, and most of her upper tier of guns dismounted. As she lay thus like a wreck, a great Dutch man of war came down upon her with two fire ships, either to burn or carry her off; and Captain Rooke, afterwards Sir George, thinking it impossible to defend her, ordered the men to save their lives, and the colours to be struck. Mr Leake hearing this, ordered the lieutenant off the quarter deck, and took the command upon himself, saying, "The Royal Prince shall never be given up to the enemy while I am alive to defend her." The undaunted spirit of the brave gunner inspired the small residue of the ship's company with resolution; they returned with alacrity to the fight, and under the direction of this valiant gunner and his two sons sunk both the fire ships, and obliged the man of war to sheer off; and having thus saved the Royal Prince, he brought her into Chatham. But Mr Leake's joy in obtaining this victory was damped by the loss of Henry, his eldest son, who was killed near him. Soon after, Mr Leake was preferred to the command of a yacht, and also made gunner of Whitehall. In 1677, he obtained a grant for life of the office of master gunner of England, and storekeeper of the ordnance at Woolwich. By this post he had full scope for his genius. He accordingly, among other things, invented the cushee piece; and contrived to fire a mortar by the blast of a piece, which has been used ever since. He was also the principal contriver of what the French call *infernals*, used at the bombardment of St Malo's in 1693. Mr Leake had a surprising genius for all inventions of this kind; and had frequent trials of skill with French and Dutch gunners and engineers in Woolwich warren, at which King Charles II. and the duke of York were often present, and he never failed to excel all his competitors: nor was he less skilled in the art of making compositions for fireworks; of which he likewise made frequent trials with equal success. Leake.

LEAKE, *Sir John*, an English admiral, distinguished by his bravery and success, was born in 1656, and wae taught mathematics and gunnery by Mr Richard Leake his father, who was master gunner of England. Entering early into the navy, he distinguished himself under his father in 1673, in the memorable engagement between Sir Edward Spragg and Van Tromp, when but 16 years of age; and being afterwards made captain, he signalized himself, among other occasions, by executing the desperate attempt of convoying some victuallers into Londonderry, which obliged the enemy to raise the siege; and at the famous battle of La Hogue. In 1702, being made commodore of a squadron, he destroyed the French trade and settlements at Newfoundland, and restored the English to the possession of the whole island. On his return he was created rear admiral; soon after, he was made vice admiral of the blue, and was afterwards knighted. He was engaged with Admiral Rooke in taking Gibraltar: soon after which, he particularly distinguished himself in the general engagement off Malaga; when commanding the leading squadron of the van, consisting only of six ships, he drove that of the enemy, consisting of 13, out of the line of battle, so disabled, that they never returned to the fight. In 1705, he relieved Gibraltar, which the French had besieged by sea, and the Spaniards by land, so seasonably, that the enemy was to have attacked the town that very night in several places, and would undoubtedly have made themselves masters of it. Five hundred Spaniards had, by the help of rope ladders, climbed up the rocks by a way that was thought inaccessible. At the same time they had got a great number of boats to land 3000 men at the New Mole, who, by making a vigorous assault on the side next the sea, were to draw the garrison to oppose the attack, while the 500 concealed men rushed into the town. These being the next day drawn by hunger out of their ambuscade, were discovered; on which Sir John assisting the garrison with sailors and marines, they were attacked with such vigour, that, though they had taken an oath not to surrender to the English, 190 common soldiers and 35 officers took quarter: 200 were killed on the spot; and the rest, who endeavoured to make their escape, fell headlong down the rock. He was soon after made vice admiral of the white, and then twice relieved that fortress. The last time, he attacked five ships of the French fleet coming out of the bay, of whom two were taken, and two run ashore and were destroyed: Baron Pointi died soon after, of the wounds he received in the battle; and in a few days the enemy raised the siege.

Leake ‖ Leao.

siege. In the year 1705 Sir John was engaged in the reduction of Barcelona; and the next year relieved that city, when it was reduced to the last extremity, and obliged King Philip to raise the siege. Soon after he took the city of Carthagena; from whence proceeding to Alicant and Joyce, both these submitted to him; and he concluded the exploits of that year with the reduction of the city and island of Majorca. Upon his return home, Prince George of Denmark made him a present of a ring valued at 400l. and he had the honour of receiving 1000l. from the queen as a reward for his services. Upon the unhappy death of Sir Cloudesly Shovel, in 1707, he was made admiral of the white, and commander in chief of her majesty's fleet; and the next year, surprising a convoy of the enemy's corn, he sent it to Barcelona, and thus saved both that city and the confederate army from the danger of famine; soon after convoying the new queen of Spain to King Charles her consort, her majesty made him a present of a diamond ring of 500l. value. He then proceeded to the island of Sardinia, which he reduced to the obedience of King Charles; and soon after assisted the lord Stanhope in the conquest of Minorca. Then returning home, he was appointed one of the council to the lord high admiral; and in 1709 was made rear admiral of Great Britain. He was several times chosen member of parliament for Rochester; and in 1712 conducted the English forces to take possession of Dunkirk. But upon the accession of King George I. he was superseded, and allowed a pension of 600l. a-year. After this he lived privately till his death, which happened at his house in Greenwich in 1720.

LEAKE, *Stephen Martin*, *Esq.* son of Captain Martin, went through different ranks in the heralds office till he came to be garter. He was the first person who wrote professedly on our English coins, two editions of his "Historical Account" of which were published by him with plates, under the title of *Nummi Britannici Historia*, London, 1726, 8vo.; the second, much improved, London, 1745, 8vo. He printed, in 1750, "The Life of Sir John Leake, knight, admiral of the fleet," &c. to whom he was indebted for a considerable estate; which the admiral devised to trustees for the use of his son for life; and upon his death to Captain Martin (who married Lady Leake's sister) and his heirs: By which means it came to the Captain's son; who, in gratitude to the memory of Sir John Leake, wrote an accurate account of his life, of which only 50 copies were printed. In 1776, he printed also 50 copies of "The Statutes of the Order of the Garter," 4to. He died in 1773; and was buried in his chancel in the parish church of Thorp in Essex, of which manor he was lord.

LEANDER, in poetic history, a young man of Abydos in Asia. He used to swim over the Hellespont by night to visit Hero his mistress, who set forth a light to guide him: but in a tempestuous winter night he was drowned; upon which Hero seeing him dead on the shore, cast herself headlong from the tower, and died also. See HERO.

LEAO, in *Natural History*, a mineral substance approaching to the nature of the lapis lazuli, found in the East Indies, and of great use in the Chinese porcelain manufactures, as it affords the finest blue they are possessed of.

Leao ‖ Lease.

LEAP, in *Music*, is when the song does not proceed by conjoint degrees, as when between each note there is an interval of a third, a fourth, fifth, &c.

Leap Year. See YEAR, and CHRONOLOGY, N° 24.

Lover's Leap. See LEUCATA.

LEAPING, or VAULTING, was an exercise much used both amongst the Greeks and Romans. The Grecians called it Αλμα, and performed it with weights upon their heads and shoulders. Sometimes they carried the weights in their hands, which were of different figures, but generally oval, and made with holes or covered with thongs, through which the contenders put their fingers. These weights were called ἁλτηρες. The contest was who could leap the highest and farthest. The place from whence they jumped was called βατης, and that to which they leaped, σκαμμα, because the ground was there dug up. This exercise was performed in the same manner by the Romans.

LEAR, the name of a British king, said in old chronicles to have succeeded his father Bladud, about A. M. 3160. The story of this king and his three daughters is well known, from Shakespeare's excellent tragedy founded on it.

LEASE, from the French *leiser*, *demittere*, "to let," in law, a demise, or letting of lands, tenements, or hereditaments, unto another for life, terms of years, or at will, for a rent reserved.

A lease is either written, called an *indenture*, *deed-roll*, or *lease* in writing; or by word of mouth, called *lease parole*.

All estates, interests of freehold, or terms for years in lands, &c. not put in writing and signed by the parties, shall have no greater effect than as estates at will; unless it be of leases not exceeding three years from the making; wherein the rent reserved shall be two-thirds of the value of the things demised. Leases exceeding three years must be made in writing; and if the substance of a lease be put in writing, and signed by the parties, though it be not sealed, it shall have the effect of a lease for years, &c.

An *assignment* differs from a lease only in this, that by a lease one grants an interest less than his own, reserving to himself a reversion; in assignments he parts with the whole property, and the assignee stands to all intents and purposes in place of the assignor.

LEASE, in *Scots Law*. See TACK.

LEASE and *Release*, a species of conveyance used in the English law, first invented by Serjeant Moore, soon after the statute of uses, and now the most common of any, and therefore not to be shaken; though very great lawyers (as particularly Mr Noy) have formerly doubted its validity. It is thus contrived: A lease, or rather bargain and sale, upon some pecuniary consideration, for one year, is made by the tenant of the freehold to the lessee or bargainee. Now this without any enrolment, makes the bargainer stand seized to the use of the bargainee, and vests in the bargainer the *use* of the term for a year; and then the statute immediately annexes the *possession*. He therefore, being thus in possession, is capable of receiving a release of the freehold and reversion, which must

Lease ‖ Leather.

must be made to a tenant in possession: and accordingly, the next day, a release is granted to him. This is held to supply the place of livery of seisin; and so a conveyance by lease and release is said to amount to a feoffment.

LEASH, among sportsmen, denotes three creatures of any kind; but chiefly grehounds, foxes, bucks, and hares.

The term *leash* also signifies a line to hold in a hunting dog; and a small long thoog of leather, by which a falconer holds his hawk.

LEASING-MAKING, in *Scots Law*, the uttering of words tending to excite discord between the king and his people; also called *verbal sedition*.

LEATHER, the skin of several sorts of beasts dressed and prepared for the use of various manufacturers, whose business it is to make them up.

Dyeing of LEATHER, *Skins, &c. Blue* is given by steeping the subject a day in urine and indigo, then boiling it with alum: or it may be given by tempering the indigo with red wine, and washing the skins therewith. *Red* is given by washing the skins, and laying them two hours in galls, then wringing them out, dipping them in a liquor made with ligustrum, alum, and verdigris in water; and lastly, in dye made of Brazil wood, boiled with ley. *Purple* is given by wetting the skins with a solution of roche alum in warm water; and, when dry again, rubbing them with the hand with a decoction of logwood in colder. *Green* is given by smearing the skin with sap-green and alum-water boiled. *Dark green* is also given with steel filings and sal ammoniac steeped in urine till soft, then smeared over the skin; which is to be dried in the shade. *Sky colour* is given with indigo steeped in boiling water, and the next morning warmed and smeared over the skin. *Yellow*, by smearing the skin over with aloes and linseed oil dissolved and strained; or by infusing it in weld. *Orange colour* is given by smearing with fustic berries boiled in alum water; or, for a deep orange, with turmeric.

Processes for Dyeing LEATHER Red *and* Yellow *as practised in Turkey, with directions for Preparing and Tanning the Skins; as communicated by Mr Philippo, a native of Armenia, who received from the Society for the Encouragement of Arts, &c. one hundred pounds, and also the gold medal of the Society, as a reward for discovering this secret.*

1. *First Preparation of the Skins, both for Red and Yellow Leather, by dressing them in Lime.* Let the skins, dried with the hair on, be first laid to soak in clean water for three days; let them then be broken over the flesh side, put into fresh water for two days longer, and afterwards hung up to drain half an hour. Let them now be broken on the flesh side, limed in cold lime on the same side, and doubled together with the grain side outward. In this state they must be hung up within doors over a frame for five or six days, till the hair be loose; which must then be taken off, and the skins returned into the lime pit for about three weeks. Take them out, and let them be well worked flesh and grain, every sixth or seventh day during that time: after which, let them be washed ten times in clear water, changing the water at each washing. They are next to be prepared in drench, as below mentioned.

Leather.

2. *Second Preparation of the Skins for both the Red and Yellow Dyes by drenching.* After squeezing the water out of the skins, put them into a mixture of bran and water, warm as new milk, in the following proportions; viz. about three pounds of bran for five skins, and water sufficient to make the mixture moderately fluid, which will be about a gallon to each pound of bran. In this drench let the skins lie three days; at the end of which time they must be well worked, and afterwards returned into the drench two days longer. They must then be taken out and rubbed between the hands; the water squeezed from them, and the bran scraped off clear from both sides of the skins. After this they must be again washed ten times in clear water, and the water squeezed out of them.

Thus far the preparatory process of all the skins, whether intended to be dyed red or yellow, is the same; but afterwards those which are to be dyed red, must be treated as follows.

3. *Preparation in Honey and Bran of Skins that are to be dyed Red.* Mix one pound of honey with three pints of lukewarm water, and stir them together till the honey is dissolved. Then add two double handfuls of bran; and taking four skins (for which the above quantity of the mixture will be sufficient), work them well in it one after another. Afterwards fold up each skin separately into a round form, with the flesh side inwards; and lay them in an earthen pan, or other proper vessel; if in the summer, by the side of each other; but in the winter, on the top of each other. Place the vessel in a sloping position, so that such part of the fluid as may spontaneously drain from the skins, may pass from them. An acid fermentation will then rise in the liquor, and the skins will swell considerably. In this state they must continue for seven or eight days; but the moisture that drains from them must be poured off, once or twice a-day, as occasion may require. After this a further preparation in salt is necessary; and which must be performed in the following manner.

4. *Preparation in Salt, of the Skins to be dyed Red.* After the skins have been fermented in the honey and bran, as above mentioned, let them be taken out of that mixture on the eighth or ninth day, and well rubbed with dry common sea salt, in the proportion of about half a pound to each skin; the salt must be well rubbed and worked with them. This will make them contract again, and part with a further considerable quantity of moisture; which must be squeezed out by drawing each skin separately through the hands. They must next be scraped clean on both sides from the bran, superfluous salt, and moisture that may adhere to them. After which, dry salt must be strewed over the grain-side, and well rubbed in with the hand. They are then to be doubled with the flesh side outwards, lengthwise from neck to tail, and a little more dry salt must be thinly strewed over the flesh side, and rubbed in; for the two last operations, about a pound and a half of salt will be sufficient for each skin. They must then be put, thus folded on each other, between two clean boards, placed sloping, breadthwise; and a heavy weight laid on the upper board, in order gradually to press out what moisture they will thus part with. In this state of pressure, they must be continued two days

Leather. or longer, till it is convenient to dye them, for which they will then be duly prepared.

5. *Preparation of the Red Dye, in a proper proportion for four Skins.* Put eight gallons of water into a copper, with seven ounces of shenan (A) tied up in a linen bag. Light a fire under a copper; and when the water has boiled about a quarter of an hour, take out the bag of shenan, and put into the boiling fluid or lixivium, 1st, Two drams of alum; 2dly, Two drams pomegranate bark; 3dly, Three quarters of an ounce of turmeric; 4thly, Three ounces of cochineal; 5thly, Two ounces of loaf sugar. Let the whole mixture boil about six minutes, then cover the fire, and take out a quart of liquor, putting it into a flat earthen pan; and when it is as cold as new milk, take one skin, folded lengthwise, the grain side outwards, and dip it in the liquor, rubbing it gently with the hands. Then taking out the skin, hang it up to drain, and throw away the superfluous dye. Proceed in the same manner with the remaining three skins; repeating the operation of each skin separately, eight times, squeezing the skins by drawing them through the hands before each fresh dipping. Lay them now on one side of a large pan, set sloping, to drain off as much of the moisture as will run from them without pressure, for about two hours, or till they are cold; then tan them as below directed.

6. *Tanning the Red Skins.* Powder four ounces of the best white galls in a marble mortar, sifting it through a fine sieve. Mix the powder with about three quarts of water, and work the skins well in this mixture for half an hour or more, folding up the skins fourfold. Let them lie in this tan for 24 hours; when they must be worked again as before; then taken out, scraped clean on both sides from the first galls, and put into a like quantity of fresh galls and water. In this fresh mixture they must be again well worked for three quarters of an hour; then folded up as before, and left in the fresh tan for three days. On the fourth day they must be taken out, washed clean from the galls in seven or eight fresh quantities of water, and then hung up to dry.

7. *Manner of Dressing the Skins after they are tanned.* When the skins have been treated as above, and are very near dry, they should be scraped with the proper instrument or scraper on the flesh side, to reduce them to a proper degree of thickness. They are then to be laid on a smooth board, and glazed by rubbing them with a smooth glass. After which they must be oiled, by rubbing them with olive oil, by means of a linen rag, in the proportion of one ounce and a half of oil for four skins: they are then to be grained on a graining board, lengthwise, breadthwise, and cornerwise, or from corner to corner. Leather.

8. *Preparations with Galls, for the Skins to be dyed Yellow.* After the four skins are taken out of the drench of bran, and clean washed as before directed in the second article, they must be very well worked, half an hour or more, in a mixture of a pound and a half of the best white galls, finely powdered, with two quarts of clean water. The skins are then to be separately doubled lengthwise, rolled up with the flesh side outwards, laid in the mixture, and close pressed down on each other, in which state they must continue two whole days. On the third day let them be again worked in the tan; and afterwards scraped clean from the galls, with an ivory or brass instrument (for no iron must touch them). They must then be put into a fresh tan, made of two pounds of galls finely powdered, with about three quarts of water, and well worked therein 15 times. After this they must be doubled, rolled up as before, and laid in the second tan for three days. On the third day a quarter of a pound of white sea-salt must be worked into each skin; and the skins doubled up as before, and returned into the tan, till the day following, when they are to be taken out, and well washed six times in cold water, and four times in water lukewarm. The water must be then well squeezed out, by laying the skins under pressure, for about half an hour, between two boards, with a weight of about 200 or 300 pounds laid upon the uppermost board, when they will be ready for the dye.

9. *Preparation of the Yellow Dye, in the proper proportion for four Skins.* Mix six ounces of cassiari gehira (B), or dgehira, or the berries of the eastern rhamnus, with the same quantity of alum; and pound them together till they be fine, in a marble or brass mortar, with a brass pestle. Then dividing the materials, thus powdered, into three equal parts of four ounces each, put one of those three parts into about a pint and a half of water, in a china or earthen vessel, and stir the mixture together. Let the fluid stand to cool, till it will not scald the hand. Then spreading one of the skins flat on a table, in a warm room, with the grain-side uppermost, pour a fourth part of the tinging liquor, prepared as above directed, over the upper or grain-side, spreading it equally over the skin with the hand, and rubbing it well in. Afterwards do the like with the other three skins, for which the mixture first made will be sufficient.

This operation must be repeated twice more on each skin

(A) Shenan is a drug much used by dyers in the east; and may easily be procured at any of the ports of Syria and Africa, in the Levant. It is the eastern jointed-kali, called by botanists *salicornia;* and grows in great plenty in those and other parts of the east. There is a lesser species of the salicornia on our coast, which, from its great affinity with the shenan, might be presumed to have the same qualities. On some trials, however, it has not appeared to answer the intention of the shenan; but it will be prudent to pursue the examination of this further, as some unknown circumstances in the collecting or using the English salicornia might occasion the miscarriage. But be this as it may, the eastern shenan may, at all events, be easily procured in any quantity, at a very trifling expence, by any of the captains of Turkey ships, at Aleppo, Smyrna, &c.

(B) The cassiari gehira is the berries of an eastern rhamnus, or buckthorn tree; and may be had at Aleppo, and other parts of the Levant, at a small price. The common Avignon or yellow berries may be substituted, but not with so good an effect; the cassiari gehira being a stronger and brighter yellow dye, both for this use and also that of colouring paper hangings, &c.

Leather. skin separately, with the remaining eight ounces of the powder of the berries, and alum, with the above-mentioned due proportions of hot water, put to them as before directed.

The skins, when dyed, are to be hung up on a wooden frame, without being folded, with the grain-side outwards, about three quarters of an hour to drain; when they must be carried to a river or stream of running water, and well washed therein six times or more. After this they must be put under pressure for about an hour, till the water be well squeezed out; afterwards the skins must be hung up to dry in a warm room.

This being done, the skins are to be dressed and grained as before directed for those dyed red; except the oiling, which must be omitted.

Blacking LEATHER. In the tanning of leather it is so much impregnated with the astringent parts of oak bark, or with that matter which strikes a black with green vitriol, that rubbing it over three or four times with a solution of the vitriol, or with a solution of iron made in vegetable acids, is sufficient for staining it black. Of this we may be convinced by dropping a little of the solution on the unblacked side of common shoe leather. This operation is performed by the currier; who, after the colouring, gives a gloss to the leather with a solution of gum arabic and size made in vinegar. Where the previous astringent impregnation is insufficient to give due colour, and for those sorts of leather which have not been tanned, some galls or other astringents are added to the solution of iron; and in many cases, particularly for the finer sorts of leather, and for renewing the blackness, ivory or lamp-black is used. A mixture of either of these with linseed oil makes the common oil blacking. For a shining blacking, small beer or water is taken instead of oil, in the quantity of about a pint to an ounce of the ivory black, with an addition of half an ounce of brown sugar and as much gum arabic. The white of an egg, substituted for the gum, makes the black more shining, but is supposed to hurt the leather, and make it apt to crack. It must be obvious, however, that all these compositions admit of a great many variations.

Gilding of LEATHER. Take glair of the whites of eggs, or gum water, and with a brush rub over the leather with either of them: then lay on the gold or silver, and, letting them dry, burnish them. See the articles GILDING and BURNISHING.

To dress or cover LEATHER *with Silver or Gold.* Take brown-red; grind or move it on a stone with a muller, adding water and chalk; and when the latter is dissolved, rub or lightly daub the leather over with it, till it looks a little whitish; and then lay on the leaf-silver or gold before the leather is quite dry, laying the leaves a little over each other, that there may not be the least part uncovered; and when they have well closed with the leather, and are sufficiently dried on and hardened, rub them over with an ivory polisher, or the foretooth of a horse.

By several statutes, regulations are made for the tanning and manufacturing of leather; and by the 27th Geo. III. c. 13. a duty is laid upon all hides and skins imported, and drawbacks allowed on the exportation thereof. Several duties are also imposed on hides and skins tanned in Great Britain, of what kind soever, as set forth in schedules annexed to the said act. By the 23 Geo. III. c. 37. further regulations are made respecting the said duties, which are under the management of the officers of excise. Leather || Lecco.

LEAVEN, a piece of sour dough, used to ferment and render light a much larger quantity of dough or paste. See BREAD, BARM, and BAKING.

Leaven was, strictly forbidden by the law of Moses during the seven days of the passover; and the Jews, in obedience to this law, very carefully purified their houses from all leaven as soon as the vigil of the feast began. Nothing of honey or leaven was to have place in any thing presented to the Lord, upon his altar, during this solemnity. If, during the feast, the least particle of leaven was found in their houses, they imagined the whole was polluted, for a little leaven leaveneth the whole lump. Leaven, in its figurative sense, signifies the bad passions of envy and malice, and rancour, which sour the temper, and extend their ferment over the social affections; whereas unleavened bread implies sincerity and truth. It is frequently used for any kind of moral contagion.

LEAVES OF PLANTS. See LEAF.

Colours extracted from LEAVES. See *COLOUR-Making*, N° 37.

LEBADEA, or LEBADIA, an ancient town of Bœotia, on the borders of Phocis, situated between Helicon and Chæronia, still called Livadia. In it stood the oracle of Jupiter Trophonius, which whoever went to consult, descended into a subterraneous gulf.

LEBEDA, an ancient sea port town of Africa, in the kingdom of Tripoli, with a pretty good harbour, and an old castle, seated on the Mediterranean sea; in E. Long. 14. 50. N. Lat. 32. 10.

LEBEDOS, reckoned among the twelve ancient cities of Ionia, was situated to the south of Smyrna. It was the residence of stage-players, and the place where they met from all parts of Ionia, as far as the Hellespont, and celebrated annual games in honour of Bacchus, (Strabo). It was overthrown by Lysimachus, who removed the inhabitants to Ephesus; scarce ever after recovering itself, and becoming rather a village than a town, (Horace).

LEBEN, or LEBENA, in *Ancient Geography*, one of the port towns of the Gortynians, near the promontory Leon, on the south-east side of Crete; famous for a temple of Æsculapius in imitation of that of Cyrenaica.

LEBRIXA, an ancient, strong, and pleasant town of Spain, in Andalusia; seated in a territory abounding in corn, wine, and a great number of olive trees, of whose fruit they make the best oil in Spain. W. Long. 5. 32. N. Lat. 36. 52.

LEBUS, a town of Germany, in the circle of Upper Saxony, and in the marquisate of Brandenburg, with a bishop's see, secularized in favour of the house of Brandenburg. It is seated on the river Oder, in E. Long. 14. 44. N. Lat. 52. 28.

LECCE, a rich populous, and most beautiful town of Italy, in the kingdom of Naples and in the Terra d'Otranto, of which it is the chief place, and the see of a bishop. E. Long. 18. 28. N. Lat. 40. 40.

LECCO, a town of Italy in the duchy of Milan, seated on the eastern side of the lake Como. E. Long. 9. 23. N. Lat. 45. 5.

Lechlade || Lecturers.

LECHLADE, a town of Gloucestershire in England, seated at the confluence of the rivers Lech and Thames. W. Long. 2. 15. N. Lat. 51. 42.

LECHNICH, a town of Germany, in the circle of the lower Rhine, now subject to Prussia. E. Long. 6. 35. N. Lat. 50. 40.

LECTI, beds or couches, were of two kinds among the Romans, as being destined to two different uses, to lie upon at entertainments, and to repose upon for nightly rest. The first were called *lecti tricliniares*, the other *lecti cubicularii*. See BEDS.

LECTICA, was a litter or vehicle in which the Romans were carried. It was of two kinds, covered and uncovered. The covered lectica is called by Pliny *cubiculum viatorum*, a traveller's bedchamber: And indeed we are informed that Augustus frequently ordered his servants to stop his litter that he might sleep upon the road. This vehicle was carried by six or eight men called *lecticarii*. The lectica differed from the *sella*, for in the first the traveller could recline himself for sleep, in the latter he was obliged to sit. The lectica was invented in Bithynia; the sella was a Roman machine, and esteemed the more honourable of the two. Lectica was also the name of the funeral bed or bier for carrying out the dead.

LECTICARII, among the Romans, servants who carried the LECTICA.

LECTICARIUS was also an officer in the Greek church, whose office it was to bear off the bodies of those who died, and to bury them. These were otherwise denominated *decani* and *copiatæ*.

LECTIO, *Reading*. Considered in a medicinal view, it is said by Celsus, lib. i. cap. 4. to be bad, especially after supper, for those whose heads are weak; and in lib. i. cap. 8. he recommends reading with an audible voice for such as have weak stomachs. It is also directed by Paulus Ægineta as an exercise, lib. i. cap. 19.

LECTISTERNIUM, a solemn ceremony observed by the Romans in times of public danger, wherein an entertainment was prepared with great magnificence, and served up in the temples. The gods were invited to partake of the good cheer, and their statues placed upon couches round the table in the same manner as men used to sit at meat. The first lectisternium held at Rome was in honour of Apollo, Latona, Diana, Hercules, Mercury, and Neptune, to put a stop to a contagious distemper which raged amongst the cattle, in the year of Rome 354. At these feasts the Epulones presided, and the sacred banquet was called *epulum*. See EPULO, EPULUM, &c.

Something like the lectisternium was occasionally observed among the Greeks, according to Casaubon.

LECTORES, among the Romans, servants in great men's houses, who were employed in reading while their masters were at supper. They were called by the Greeks ANAGNOSTÆ.

LECTOURE, an ancient and strong town of France, in Gascony, with a castle and a bishop's see; seated on a mountain, at the foot of which runs the river Gers. E. Long. 0. 42. N. Lat. 43. 56.

LECTURERS, in England, are an order of preachers in parish churches, distinct from the rector, vicar, and curate. They are chosen by the vestry, or chief inhabitants of the parish, supported by voluntary subscriptions and legacies, and are usually the afternoon preachers in the Sunday service. The term is also more generally applied to those who preach on Sunday, or on any stated day of the week, in churches or other places of public worship. By 13 and 14 Car. II. cap. 4. lecturers in churches, unlicensed, and not conforming to the liturgy, shall be disabled, and shall also suffer three months imprisonment in the common gaol; and two justices, or the mayor in a town corporate, shall, upon certificate from the ordinary, commit them accordingly. Where there are lectures founded by the donations of pious persons, the lecturers are appointed by the founders without any interposition or consent of rectors of churches, &c. though with the leave and approbation of the bishop; such is that of Lady Moyer's at St Paul's. But the lecturer is not entitled to the pulpit, without the consent of the rector or vicar, who is possessed of the freehold of the church.

Lecturers || Lee.

LEDA, in fabulous history, a daughter of King Thespius and Eurythemis, who married Tyndarus king of Sparta. She was seen bathing in the river Eurotas by Jupiter, when she was some few days advanced in her pregnancy, and the god, struck with her beauty, resolved to deceive her. He persuaded Venus to change herself into an eagle, while he assumed the form of a swan, and after this metamorphosis Jupiter, as if fearful of the tyrannical cruelty of the bird of prey, fled through the air into the arms of Leda, who willingly sheltered the trembling swan from the assaults of his superior enemy. The caresses with which the naked Leda received the swan, enabled Jupiter to avail himself of his situation, and nine months after this adventure the wife of Tyndarus brought forth two eggs, of one of which sprung Pollux and Helena, and of the other Castor and Clytemnestra. The two former were deemed the offspring of Jupiter, and the others claimed Tyndarus for their father. Some mythologists attribute this amour to Nemesis and not to Leda; and they farther mention, that Leda was intrusted with the education of the children which sprung from the eggs brought forth by Nemesis. To reconcile this diversity of opinions, others maintain that Leda received the name of *Nemesis* after death. Homer and Hesiod make no mention of the metamorphosis of Jupiter into a swan, whence some have imagined that the fable was unknown to those two ancient poets, and probably invented since their age.

LEDBURY, a town of Herefordshire in England. It is a well built town, seated on a rich clay soil, and inhabited mostly by clothiers. Population 3186. W. Long. 2. 20. N. Lat. 52. 6.

LEDESMA, an ancient and strong town of Spain, in the kingdom of Leon, seated on the river Tome, in W. Long. 5. 25. N. Lat. 47. 2.

LEDGER, the principal book wherein merchants enter their accounts. See BOOK-KEEPING.

LEDUM, MARSH CISTUS, or *Wild Rosemary*; a genus of plants belonging to the decandria class; and in the natural method ranking under the 18th order, *Bicornes*. See BOTANY *Index*.

LEE, an epithet used by seamen to distinguish that part of the hemisphere to which the wind is directed, from the other part whence it arises; which latter is accordingly called *to windward*. This expression is chiefly

Lee. chiefly used when the wind crosses the line of a ship's course, so that all on a side of her is called *to windward*, and all on the opposite side *to leeward*. Hence,

Under the LEE, implies farther to the leeward, or farther from that part of the horizon whence the wind blows: as,

Under the LEE *of the shore;* i. e. at a short distance from the shore which lies to windward. This phrase is commonly understood to express the situation of a vessel anchored, or sailing under the weather-shore, where there is always smoother water, and less danger of heavy seas, than at a great distance from it.

LEE Larches, the sudden and violent rolls which a ship often takes to the leeward in a high sea, particularly when a large wave strikes her on the weather-side.

LEE-Side, all that part of a ship or boat which lies between the mast and the side farthest from the direction of the wind; or otherwise, that half of a ship which is pressed down towards the water by the effort of the sails, as separated from the other half by a line drawn through the middle of her length. That part of the ship which lies to windward of this line is accordingly called the *weather-side*. Thus admit a ship to be sailing southward, with the wind at east, then is her starboard or right side the *lee-side;* and the larboard, or left, the *weather-side*.

LEE-Stone. See *LEE-Penny*.

LEE-Way. See NAVIGATION.

LEE, NATHANIEL, a very eminent dramatic poet of the last century, was the son of a clergyman, who gave him a liberal education.—He received his first rudiments of learning at Westminster school; from whence he went to Trinity college, Cambridge.—Coming to London, however, his inclination prompted him to appear on the theatre; but he was not more successful in representing the thoughts of other men, than many a genius besides, who have been equally unfortunate in treading the stage, although they knew so well how to write for it. He produced 11 tragedies, all of which contain a very great portion of true poetic enthusiasm. None, if any, ever felt the passion of love more truly; nor could any one describe it with more tenderness. Addison commends his genius highly; observing, that none of our English poets had a happier turn for tragedy, although his natural fire and unbridled impetuosity hurried him beyond all bounds of probability, and sometimes were quite out of nature. The truth is, this poet's imagination ran away with his reason; so that at length he became quite crazy; and grew so mad, that his friends were obliged to confine him in bedlam, where he made that famous witty reply to a coxcomb scribbler, who had the cruelty to jeer him with his misfortune, by observing that it was an easy thing to write like a madman:—"No (said Lee), it is not an easy thing to write like a madman; but it is very easy to write like a fool." Lee had the good fortune to recover the use of his reason so far as to be discharged from his melancholy confinement; but he did not long survive his enlargement, dying at the early age of 34. Cibber, in his Lives of the Poets, says he perished unfortunately in a night ramble in London streets.—His Theodosius and Alexander the Great are stock plays, and to this day are often acted with great applause. The late Mr Barry was particularly fortunate in the character of the Macedonian hero.

Lee, Lee-Penny.

LEE-Penny, or *Lee-stone*, a curious piece of antiquity belonging to the family of Lee in Scotland, and of which the following account has been given in the Gentleman's Magazine for December 1787.

It is a stone of a dark red colour and triangular shape, and its size about half an inch each side. It is set in a piece of silver coin, which, though much defaced, by some letters still remaining is supposed to be a shilling of Edward I. the cross being very plain, as it is on his shillings.—It has been, by tradition, in the Lee family since the year 1320; that is, a little after the death of King Robert Bruce, who having ordered his heart to be carried to the Holy Land, there to be buried, one of the noble family of Douglas was sent with it, and it is said got the crowned heart in his arms from that circumstance: but the person who carried the heart was Simon Locard of Lee, who just about this time borrowed a large sum of money from Sir William de Lendsay, prior of Air, for which he granted a bond of annuity of ten pounds of silver, during the life of the said Sir William de Lendsay, out of his lands of Lee and Cartland. The original bond, dated 1323, and witnessed by the principal nobility of the country, is still remaining among the family papers.

As this was a great sum in those days, it is thought it was borrowed for that expedition; and from his being the person who carried the royal heart, he changed his name to *Lockheart*, as it is sometimes spelled, or Lockhart, and got a heart within a lock for part of his arms, with the motto *Corda serata pando*.—This Simon Lockhart having taken prisoner a Saracen prince or chief, his wife came to ransom him; and on counting out the money or jewels, this stone fell out of her purse, which she hastily snatched up: which Simon Lockhart observing, insisted to have it, else he would not give up his prisoner. Upon this the lady gave it him, and told him its many virtues, viz. that it cured all diseases in cattle, and the bite of a mad dog both in man and beast. It is used by dipping the stone in water, which is given to the diseased cattle to drink; and the person who has been bit, and the wound or part infected, is washed with the water. There are no words used in the dipping of the stone, or any money taken by the servants, without incurring the owner's displeasure. Many are the cures said to be performed by it, and people come from all parts of Scotland, and even as far up in England as Yorkshire, to get the water in which the stone is dipped, to give their cattle, when ill of the murrain especially, and black-leg.—A great many years ago, a complaint was made to the ecclesiastical courts against the laird of Lee, then Sir James Lockhart, for using witchcraft.—It is said, when the plague was last at Newcastle, the inhabitants sent for the Lee-penny, and gave a bond for a large sum in trust for the loan; and that they thought it did so much good, that they offered to pay the money, and keep the Lee-penny: but the gentleman would not part with it. A copy of this bond is very well attested to have been among the family papers, but supposed to have been spoiled, along with many more valuable ones, about 50 years ago, by rain getting into the charter room, during a long minority, and no family residing at Lee.

We

Lee-Penny || Leeds.

We have given this history, not on account of the utility of the information, but as a proof of the superstition of the times. None of the virtues which the stone was formerly supposed to possess, are now ascribed to it, excepting, we believe, in the case of some of the diseases of cattle; and even these in more enlightened times will become daily less numerous and less powerful.

LEECH, in *Zoology*. See HIRUDO, HELMINTHOLOGY *Index*.

LEECHES, in a ship, the borders or edges of a sail which are either sloping or perpendicular.

The leeches of all sails whose tops and bottoms are parallel to the deck, or at right angles to the mast, are denominated from the ship's side, and the sail to which they belong; as the *starboard* leech of the main-sail, the *lee* leech of the fore-top sail, &c. But the sails which are fixed obliquely on the masts have their leeches named from their situation with respect to the ship's length; as the *fore* leech of the mizen, the *after*-leech of the jib or fore-stay sail, &c.

LEECH Lines, certain ropes fastened to the middle of the leeches of the main-sail and fore-sail, and communicating with blocks under the opposite sides of the top, whence they pass downward to the deck, serving to truss up those sails to the yard as occasion requires. See BRAILS.

LEECH-Rope, a name given to that part of the bolt-rope to which the border or skirt of a sail is sewed. In all sails whose opposite leeches are of the same length, it is terminated above the earing, and below the clue. See *BOLT-Rope*, CLUE, and EARING.

LEEDS, a town of the west riding of Yorkshire, 196 miles from London, has a magnificent stone bridge over the river Aire to the suburbs. It was incorporated by King Charles I. with a chief alderman, nine burgesses, and 20 assistants; and by Charles II. with a mayor, 12 aldermen, and 24 assistants. It has been a long time famous for the woollen manufacture, and is one of the largest and most flourishing towns in the county, yet had but one church till the reign of Charles I. By means of inland navigation, it has communication with the rivers Mersey, Dee, Ribble, Ouse, Trent, Darwent, Severn, Humber, Thames, Avon, &c.; which navigation, including its windings, extends above 500 miles in the counties of Lincoln, Nottingham, Lancaster, Westmoreland, Chester, Stafford, Warwick, Leicester, Oxford, Worcester, &c. Here is a long street full of shops, and a hall for the sale of cloth, built in 1758. The merchants of this place, York, and, Hull, ship them off at the latter port, for Holland, Hamburgh, and the north. After ringing of the market-bell at six or seven in the morning, the chapmen come and match their patterns, when they treat for the cloth with a whisper, because the clothiers standings are so near each other; and perhaps 20,000l. worth of cloth is sold in an hour's time. At half an hour after eight the bell rings again, when the clothiers make room for the linen-drapers, hardware men, shoemakers, fruiterers, &c. At the same time the shambles are well stored with all sorts of fish and flesh; and 400 horse loads of apples have been counted here in a day. There is a magnificent hall, where they also sell great quantities of white cloth; and here is a noble guildhall, with a fine marble statue of Queen Anne, erected about the year 1714. Its river being navigable by boats, they send other goods, besides their cloth, to Wakefield, York, and Hull, and furnish York with coals. There is a house called *Red hall*, because it was the first brick building in the town, and King Charles I. had an apartment in it, which is ever since called the *King's chamber*. There is another place called *Tower hill*, on which there was once a tower; besides which, there was a castle which King Stephen besieged in his march to Scotland. Here was also a park, where are now inclosures. There is a workhouse here of free stone, where poor children are taught to mix wool, and perform other easy branches of that manufacture, and a part of it has been used many years as an hospital for the reception of the aged poor. Here are three alms houses, and two charity schools of blue coat boys to the number of 100. In the ceiling of St Peter's, its only parochial church, the delivery of the law to Moses is finely painted in fresco by Parmentier. It is a venerable free-stone pile built in the cathedral fashion, and seems to have been the patch work of several ages. The increase of building in Leeds in the year 1786, was nearly 400 houses. The population in 1801 amounted to 30,669. There is a Presbyterian meeting-house here, erected in 1691, called the *new chapel*, which is the stateliest, if not the oldest, of that denomination in the north of England: and in the town and its suburbs are several other meeting-houses, as is always observable in towns of great trade and manufacture. It is noted for some medicinal springs; one of which, called *St Peter's*, is very cold, and has been found very beneficial in rheumatisms, rickets, &c. Here is an hospital for relief of the poor who had been honest and industrious, endowed with 80l. a-year, besides 10l. a-year for a master to read prayers and instruct them; also a free school. Its markets are Tuesdays and Saturdays, and the market-laws are more strictly observed here than anywhere. It has two fairs in the year. Leeds, though a large town, sends no members to parliament.

Leeds || Leer.

LEEK. See ALLIUM, BOTANY *Index*; and for its culture, see GARDENING.

LEEK, a town of Staffordshire in England, 155 miles from London. It lies among the barren moorlands, has a manufacture of buttons, a market on Wednesday, and seven fairs in the year. In the churchyard, at the south-east corner of the chancel, are the remains of a Danish cross, now upright, and 10 feet high from the ground, beneath which are three steps. In Blue-hills in the neighbourhood are coal mines; and a salt stream comes from thence, which tinges the stones and earth through which it runs with a rusty colour, and, with the infusion of galls, turns as black as ink. Here are rocks of a most surprising height, without any turf or mould upon them.

LEER, in glass-making, a sort of third furnace, intended to anneal and cool by proper degrees the vessels when made. This properly comprehends two parts, the tower and leer. The tower is that part which lies directly above the melting furnace, with a partition between them of a foot thick, in the midst whereof there is a round hole, placed exactly over the furnace, through which the flame and heat pass into the tower: on the floor of this tower the vessels are set to anneal. There are two openings by which the vessels are put into this tower; and after standing there some

Leer || Leetakoo.

some time, they are put into iron pans, which by degrees are drawn out all along that part of this furnace, which is properly called the *leer;* which is five or six yards long, that the vessels may cool by degrees. This leer is continued to its tower and arched all along, and is about four feet wide, and high within. The glasses are cool by that time they are brought to the mouth of this, which enters into a room where the glasses are placed when taken out.

LEES, the grossest and most ponderous parts of liquors, which, being separated by fermentation, fall to the bottom. The word comes from the French *lie;* and that either from *limus*, "mud," or from *Lyeus*, one of the surnames of Bacchus; or, according to Du Cange, from *lia*, a corrupt Latin word signifying the same. The vinegar-makers make a great trade of the lees of wine dried and made into cakes, after having squeezed out the remains of the liquor in presses.

LEET, or COURT LEET (*leta visus franci plegii*), is a court of record, ordained for punishing offences against the crown; and is said to be the most ancient court of the land. It inquires of all offences under high treason; but those who are to be punished with loss of life or member, are only inquirable and presentable here, and to be certified over to the justices of assize, (Stat. 1. Edw. III.). And this court is called the view of frank pledge, because the king is to be there certified by the view of the steward, how many people are within every leet, and have an account of their good manners and government; and every person of the age of 12 years, who hath remained there for a year and a day, may be sworn to be faithful to the king, and the people are to be kept in peace, &c. A leet is incident to a hundred, as a court baron to a manor: for by grant of a hundred, a leet passeth; and a hundred cannot be without a leet.—The usual method of punishment in the court leet, is by fine and amercement; the former assessed by the steward, and the latter by the jury.

LEETAKOO, a considerable town in southern Africa, situated in 26° 30′ S. Lat. and 27° E. Long. A river runs through the midst of it, which from the extent of the channel must be sometimes of considerable magnitude. This town, which was discovered by a mission from the Cape of Good Hope in 1801 and 1802, is computed to be fully of as great extent as Cape Town; but the exact number of the houses, says Mr Barrow, could not be ascertained, owing to the irregularity of the streets and the lowness of the buildings. It contains, according to some, about 10,000 inhabitants of all descriptions, while others make them amount to nearly 15,000. The ground plan of every house is a complete circle, from 12 to 15 feet diameter; the floor consists of hard beaten clay, raised four inches above the surface of the inclosure. One-fourth of it, commonly facing the east, is entirely open, the other three-fourths walled up with clay and stones, to the height of about five feet. The people deposit their valuable articles in another apartment described with the same radius as the former, such as skin clothing, ivory ornaments, knives and other articles, which to them are of essential service. In this also the elder part of the family take their repose, and the children sleep in the half-closed *viranda*.

The whole house is covered with a roof in the form of a tent, supported by poles built into the wall. The roof is thatched with reeds, bound together with leathern thongs. The inhabitants preserve their grain and pulse in large clay vessels adjacent to the house, exhibiting the appearance of large oil jars, and some of them containing about 200 gallons.

Leetakoo || Legate.

The regularity and decorum with which the people of Leetakoo conduct themselves, give a very favourable opinion of them, as being greatly superior to savages, and evince them to be bordering on a state of civilization, which it would be no difficult matter to introduce among them. They are friendly, peaceable, and inoffensive, and appear to live under a government which may be denominated purely patriarchal, and the chief of consequence must be the idol of the people. They do not appear to have any particular form of religious worship, in the common acceptation of that word, yet they circumcise all male children, and dance in a circle the whole night of the full moon. They seem also to believe that there is a power directing the operations of nature, who is infinitely superior to themselves, and to whose influence they are subject. *Barrow's Travels to Cochin-China.* Appendix.

LEEWARD Ship, a vessel that falls much to leeward of her course, when sailing close hauled, and consequently loses much ground.

To LEEWARD, towards that part of the horizon which lies under the lee, or whither the wind bloweth. Thus, "We saw a fleet *under the lee*," and, "We saw a fleet *to leeward*," are synonymous expressions.

LEG, in *Anatomy*, the whole lesser extremity from the acetabula of the ossa innominata, commonly divided into three parts, viz. the thigh, the *leg* properly so called, and the foot. See ANATOMY, N° 60.

LEGACY, in *Scots Law*, a donation by one person to another, to be paid by the giver's executor after his death. See LAW, N° clxxxi. 3.

LEGATE, a cardinal or bishop, whom the pope sends as his ambassador to sovereign princes. See AMBASSADOR.

There are three kinds of legates, viz. legates *à latere*, legates *de latere*, and legates by office, or *legati nati:* of these the most considerable are the legates *à latere*, the next are the legates *de latere*. See the article LATERE.

Legates by office are those who have not any particular legation given them; but who, by virtue of their dignity and rank in the church, become legates: such are the archbishop of Rheims and Arles: but the authority of these legates is much inferior to that of the legates *à latere*.

The power of a legate is sometimes given without the title. Some of the nuncios are invested with it. It was one of the ecclesiastical privileges of England from the Norman conquest, that no foreign legate should be obtruded upon the English, unles the king should desire it upon some extraordinary emergency, as when a case was too difficult for the English prelates to determine.

The term *legate* comes from *legatus*, which Varro derives from *legere*, "to choose;" and others from *legare, delegare*, "to send, delegate."

Court of the LEGATE, was a court obtained by Cardinal Wolsey of Pope Leo X. in the ninth year of Henry VIII. wherein he, as legate of the pope, had

power

Legate ‖ Legend.

power to prove wills, and dispense with offences against the spiritual laws, &c. It was but of short continuance.

LEGATEE, in *Scots Law*, the person to whom a legacy is provided.

LEGATIO LIBERA, was a privilege frequently obtained of the state, by senators of Rome, for going into any province or country, upon their own private business, in the quality of *legati* or envoys from the senate, that the dignity of this nominal office might secure them a good reception, and have an influence on the management of their concerns. The cities and towns through which they passed were obliged to defray their expences.—This was called *libera legatio*, because they might lay aside the office as soon as they pleased, and were not encumbered with any actual trust.

LEGATUS, a military officer amongst the Romans, who commanded as deputy of the commander in chief. The *legati*, at their first institution, were not so much to command as to advise. They were generally chosen by the consuls, with the approbation of the senate. As to the number of the *legati*, we have no certain information, though we may upon good grounds assign one to every legion. In the absence of the consul or proconsul, they had the honour to use the *fasces*.

Under the emperors there were two sorts of *legati*, *consulares* and *prætorii*. The first commanded whole armies, as the emperors lieutenant-generals; and the other had the command of particular legions.

The *legati* under the proconsuls in the provinces, served for judging inferior causes, and management of smaller concerns, remitting things of great moment to the governor or president himself. This was the original office of the *legati*, as was hinted above; though, as we have seen, they were afterwards admitted to command in the army.

LEGEND, any idle or ridiculous story told by the Romanists concerning their saints, and other persons, in order to support the credit of their religion.

The legend was originally a book used in the old Romish churches, containing the lessons to be read at divine service; hence the lives of the saints and martyrs came to be called *legends*, because chapters were read out of them at matins, and at the refectories of religious houses. Among these the golden legend, which is a collection of the lives of the saints, was received in the church with great applause, which it maintained for 200 years; though it is so full of ridiculous and romantic stories, that the Romanists themselves are now ashamed of it. Legend.

LEGEND is also used by authors to signify the words or letters engraven about the margin, &c. of coins. Thus the legend of a French crown is, SIT NOMEN DOMINI BENEDICTVM; that of a moidore, IN HOC SIGNO VINCES: on those of the last emperors of Constantinople, we find IESVS CHRISTVS BASILEVS BASILEON, IHS XPS NIKA, IESVS CHRISTVS VINCIT.

LEGEND is also applied to the inscription of medals, which serves to explain the figures or devices represented on them. In strictness, the legend differs from the inscription; this last properly signifying words placed on the reverse of a medal, in lieu of figures.

It seems as if the ancients had intended their medals should serve both as images and as emblems; the former for the common people, and the other for persons of taste and parts; the images to represent the faces of princes; emblems their virtues and great actions; so that the legend is to be looked on as the soul of the medal, and the figures as the body.

Every medal has properly two legends; that on the front, and that on the reverse. The first generally serves only to distinguish the person by his name, titles, offices, &c.: the latter is intended to express his noble and virtuous sentiments, his good deeds, and the advantages the public has reaped by him. This, however, does not hold universally; for sometimes we find the titles shared between both sides, and sometimes also the legend.

In the medals of cities and provinces, as the head is usually the genius of the place, or at least some deity adored there, the legend is the name of the city, province, or deity, or of both together; and the reverse is some symbol of the city, &c. frequently without a legend, sometimes with that of one of its magistrates.

Legends generally commemorate the virtues of princes, their honour and consecrations, signal events, public monuments, deities, vows, privileges, &c. which are either in Latin or Greek, or a mixture of both, and are intended to eternize their names, and the benefits done by them to the empire.

LEGERDEMAIN,

OR SLEIGHT OF HAND,

A DENOMINATION given to certain deceptive performances, which either depend altogether on dexterity and address, or derive but a small degree of aid from philosophical principles. Of these we shall present our readers with a selection of the best that have been either explained in books or publicly exhibited.

SECT. I. *Performances with Cups and Balls.*

Preliminary explanations.

THE following method of exercising this simple and ingenious amusement is that practised by one Mr Kopp a German, whose performances are deservedly preferred to those of former artists. In this, however, as in all the other branches belonging to the art of legerdemain, it is not sufficient that a person has the requisite dexterity or sleight of hand; it is necessary also to take off the attention of the spectators by some entertaining discourse; which not only prevents discovery, but adds greatly to the amusement of the company; for which reason, such discourse is inserted in this article.

To play this part properly, the performer on cups and

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and balls ought to provide himself with a bag about 12 inches long, and from eight to ten in depth. The inside must be furnished with a number of pockets, for holding the several articles necessary in the amusement; and this bag the performer must hang before him.

Plate CCXC. fig. 1.

The materials necessary for the performer are,

1. Three white polished tin cups, represented by A, B, and C (fig. 1.) in the shape of a truncated cone with a double ledge D towards the base. This ledge, which is about half an inch in breadth, serves to raise the cups easily by, admitting also the hand to pass a small cork ball (see fig. 5.). The upper part E of the cup ought to be hollowed in the form of a sphere, sufficient to contain the balls without their appearing above the upper edge of the cups.

2. It is also necessary to have a small rod, called *Jacob's staff;* which is usually made of ebony, and neatly tipt with ivory at both ends. This is frequently used for striking on the cups; and being held in the hand where the balls are also kept, it gives the operator an opportunity of keeping that hand generally shut, or of varying its position, in order to avoid being discovered. The balls are made of cork, blackened by slight burning on the outside.

The dexterity in performing this operation consists in artfully secreting a ball in the right hand, and making it to appear or disappear in the same hand. The secreting it between the fingers is called *conjuring the ball*, at which time the spectators are to suppose that it is kept in the other hand, or that it was passed under a cup; but if it is made to reappear when held secretly in the hand, they must believe that it came out of the place last touched by the fingers.

Conjuring the ball is performed by putting it between
Fig. 2. the place of the thumb A and the finger B (fig. 2.), conveying it with the thumb, by rolling it upon the fingers the length of the line BC, moving the middle finger D to a distance, and placing the ball at the junc-
Fig. 3. tion of the fingers C (fig. 3.); but in this part of the operation it is necessary to hold the ball rather tight, lest it should fall down and discover the secret. In order to make it appear, we must bring back the ball the same way from C to D; and every time that it is conjured, or made to disappear, as well as when it is made to reappear, the palm of the hand should be turned from the side of the table on which the operator is playing.

While this part of the trick is performing, the operarator must let the spectators know that the ball has been passed under a cup, or into another hand; and in the first case he makes a motion with the hand (as
Fig. 4. represented fig. 4.), indicating that he had thrown it through the cup; at which time also he conjures it, approaching the two fingers of the right hand towards the left, which last he holds open, and makes a motion as if the ball had been placed there, shutting the left hand instantly. It is also to be supposed, at every time when a ball seems to be placed below a cup, that it has been held in the left hand; and when he raises
Fig. 5. the cup with the right hand, as in fig. 5. the left hand must be opened, and he rests the ball at that instant upon the hollow of the other, sliding it along the fingers.

At the time the ball is to be put secretly under the cup, it should lie between the two fingers of the right hand (fig. 5.). With this hand he raises the cup; and placing it on the table, lets go the ball, which, according to its position in fig. 6. should be found near the edge of the cup when taken into the hand. If he would put the ball secretly between the two cups, it must be let go by jerking it towards the bottom of the cup which he holds, and placing it very quickly on that in which the ball is to be found. When the ball is in this situation, if the operator should want it to disappear, he must raise the two cups with his right haod, and draw out hastily that under which the ball is placed; at the same instant lowering with his left hand the other cup, under which he places it.

Performances with Cups and Balls.

Fig. 6.

In speaking of the tricks which follow, terms are made use of which explain whether what is said be feigned or true; of which terms explanations are given, and numbers adapted to the explanations of the different operations which follow.

I. *To put the ball under the cup:* Really done, with the fingers of the right or left hand.

II. *To put the ball under the cup, or in the hand.*—A feigned conjuration; pretending to shut it up in the left hand, which is afterwards opened, in order to have it supposed that the ball is under the cup or elsewhere. See fig. 5.

III. *To pass the ball under the cup.*—The ball supposed to be conjured is to be really introduced.

IV. *To pass the balls between the cups*, is likewise real.

V. *To make the ball which is between the cups disappear.*—This is likewise real; and performed, as has already been described, by drawing back with much precipitation and dexterity the cup on which it is placed, aad lowering upon the table that which is above, and under which the ball must of conscquence be found.

VI. *To take the ball.* Real.—It is taken between two fingers of the right hand, and shown before conjuration.

VII. *To take away the ball from under the cup.* This is done by taking it away in the sight of the spectators.

VIII. *To draw the ball.* Feigned; or by pretending to draw it from the end of the rod, from the cup, or any other place, by bringing into the fingers the ball which was secreted.

IX. *To throw the ball through the cup*, is to conjure it in pretending to throw it.

X. *To raise up the cups.* This is really done in three ways; viz. either with the right hand, the rod, or the left hand. The first is when the ball is to be secretly inserted in returning the cup to its place. In the second, the rod is to be put on the tops of the cups to turn them over again, so that the balls may be shown which were to be passed into them. The third is when the operator intends to show that no balls are in the cups, or that there are some.

XI. *To cover a cup.* This is really done, by taking with the right hand that which is to be put over another, and introducing at the same time a ball between the two.

XII. *To recover a cup.* It is done by taking with the left band the cup to be put over or above, without introducing any thing into it.

Performances with Cups and Balls.

The PERFORMANCES.

1. *To put a ball under each cup, and take it out again.* Having placed on the table the three cups and little rod, as shown in fig. 1. the performer must begin his manœuvres, by endeavouring to amuse the spectators with some kind of entertaining discourse. Nothing can be more *apropos* than the origin of the little rod and cups; and he must be very assiduous in this sort of discourse, to take off the eyes of the spectators as much as possible. The following may be a specimen of the manner in which he ought to address his audience: "There are many persons who meddle with the play of the cups and balls, and yet know nothing about them. This is by no means extraordinary: even I who now play before you, pretend to know but little. Nay, some time ago, I was such a novice as to think of playing before a numerous assembly with glass cups, in which you may guess I did not meet with great applause. I do not indeed practise this method but before such as are actually blind; neither do I play with China cups, lest, through awkwardness in feigning to break their handles, I should do so in reality. These are the cups which answer my purposes. They are made of such metal as the alchymists attributed to Jupiter and Mars, or, to speak more properly and intelligibly, they are made of tin. Behold and examine these cups (*shewing the cups to the company, and putting them on the table*): All my science, and it is in that in which it is admirable, consists in deceiving the eyes, and passing the balls into the cups without your perceiving how it is done. I advise you therefore to pay no attention to my words, but to examine well my hands, (*showing his hands*). If there is in this company any person who has the misfortune to use spectacles, he may retire; but the most clear sighted will see nothing there.

"Here is the little Jacob's rod (*showing the rod with the left hand*); that is to say, the magazine from which I take all my balls (*taking secretly with the other hand a ball from his bag, which he hides between his fingers*). There is not one in England so well furnished. Observe, that the more I take from it the more remain: I draw from it (VIII.) this ball (*showing it, and placing it upon the table*, (I.). Observe that there is nothing under the cups (*showing the inside of the cups*), and that I have no other ball in my hands, (*showing his hands*). I take (VI.) this ball. I put it (II.) under the first cup. I draw (VIII.) a second ball from my little rod, and I put it under this second cup (*actually done*). It is proper here to tell you, that the generality of those who play the cups only feign to put the balls there; but I do not deceive you, and I actually put them there. (*He raises the cup* B, *and taking the ball which he has put under it into his right hand fingers, shows it to the company*). I return it (II.) under the same cup. I take (VIII.) this third, and put it (II.) in the same way under this last cup. You are about to say that this is not very extraordinary, and that you could do it as well yourselves. I agree with you; but the difficulty consists in taking out these balls again through the cups, (*striking the first cup with the rod*). I take (VIII.) this first ball (*showing it*). I put it (II.) into my hand, and send it to Constantinople, (*he opens the left hand*). I take (VIII.) this (*striking with the rod on the second cup*). I put it (II.) into my hand, and I send it to the East Indies, (*opening his left hand*). I take (VIII.) the last and I put it (I.) on the table: Observe that there are no more under any of these cups (*turning down the cups with the rod*).

2. *With the single ball remaining on the table to pass a ball through each of the cups, and to take it off from the same.* "I return the cups to their places, and take (VI.) this ball, and I put it under this first cup. I take it back again (VIII.): observe that it is not there now, (*raising* (X.) *the cup with the left hand*). I put it (II.) under this other cup: I take it out again (VIII.) in the same manner, (*raising* (X.) *the cup*). I put it (II.) under the last cup, and take it out again (VIII.) (*raising the last cup with the left hand, and placing the ball on the table*).

3. *With the single ball remaining on the table, to take away a ball through two or three cups.*—In this performance the three cups are distinguished by A, B, C, as in fig. 1.

"I never have any ball secreted in my hands, as the greatest part of them who play at the cups and balls have (*showing his hands*). I take (VI.) this ball, and I put it (II.) under this cup B. I cover it (XII.) with this cup C, and I take again (VIII.) this ball through the two cups (*shows the ball placing it on the table, returns afterwards the cup* C *to its place, and raises* (X.) *the cup* B *to show that there is nothing there*). I take again (VI.) this same ball. I put it (II.) under the same cup B: I cover it (XII.) with the two other cups C and A; and I take out (VIII.) this ball through the three cups (*showing it and placing it on the table*).

4. *With the single ball remaining on the table, to pass the same ball from cup to cup.*—"I now beg of you to pay every possible attention, and you will very distinctly see this ball pass from one cup into the other (*putting the cups at a greater distance from each other*). I take (VI.) this ball, and I put it (II.) under the cup C: there is nothing under this cup B (*raising it, introducing the ball and taking the rod in his hand*). I command that which I have put under the cup to pass under that B. You see it (*moving the end of the rod from one cup to the other, as if he followed the ball*): observe that it is passed (*raising the cup with his left hand, and taking the ball with his right, shows it to the company*). I return it (II.) under this cup B; there is nothing under this A (*raising the cup with his right hand, and introducing the ball there*). I am going to pass it under this last cup A. Look well; come near: (*making as if seeing it he would show with the end of the rod the path that it took*). You did not see it pass? I am not much surprised: I did not see it myself; however, here it is under the cup (*raising the cup* A, *and placing it on the table*).

5. *With the same ball remaining on the table. The cups being covered, to pass a ball from one into the other, without raising them up.*—I was very right in telling you, that the most clear sighted would not see very much; but for your comfort, here is a trick in which you will see nothing at all. I take this ball, and put it (II.) under this cup B. I cover it (XI.) with the two other cups (*taking one in each hand, and introducing the ball upon the cup* B): pay attention, that there

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is absolutely nothing in my hands (*showing them*). I command this ball to mount up upon the first cup (*taking up the two cups, and putting them in their places, he shows that it has mounted*). I return (II.) this ball under the same cup B. I cover it as before (*covers it in taking a cup in each hand, and introducing a ball between the second and third cup*). I take (*the only ball with which he plays being under the third cup, he cannot show it, but acts as if he had taken it out, and puts it into the fingers of his left hand, which he holds in the air, in conducting the hand from one side to the other*). I take the ball, which is under these three cups; and I throw it through the first cup (*feigning to throw it*): observe that I have not conjured the ball, having nothing in my hands (*showing them*); it is passed, however, (*raising the first cup with the left hand, putting the ball upon the table and the cups in their places*).

6. *With the single ball remaining on the table, to pass a ball through the table and two cups.*—"You are undoubtedly surprised, that, having but a single ball, I have been able, after having shown it to you, to pass it under this cup without raising it; but let not that astonish you: I have secrets much more wonderful. I convey, for example, the steeple of one village into another: I have sympathetic quadrants, with which a conversation may be held at 200 leagues distance: I have a flying chariot which can conduct me to Rome in three days. I will show all these curiosities as soon as my machines are entirely completed; that is to say, in a few centuries: but to amuse you till the arrival of all these prodigies, I now continue the entertainment of the cups and balls. I put (II.) this ball under the cup A. I take it away again (VIII.) (*showing it, and feigning to put it into his left hand fingers.*) I cover (XI.) this cup with the two others B and C (*introducing the ball between these two cups, using always the right hand, and feigning still to hold it in his left*), and I pass this same ball through the table and the two cups (*putting the left hand under the table*). There it is passed (*raising the first cup*).

7. *With the same ball. A ball having been put under a cup, to take it away again, and to pass it between two others.*—"Here is again a very pretty trick: I take this ball, and I put it (II.) under this cup A. Observe, that there is nothing under the others (*showing them and introducing the ball under the cup* C), nor in my hands: I take this ball, which is under the cup A (*feigning to take it out, and raising the bottom of the cup so that the spectators may not attend to his fingers*). I cover this cup C with the two others A and B, and I throw it (IX.) through these two cups (*raising them, and showing them that the ball is passed there.*)

8. *With this single ball and a shilling; to pass a ball from one hand into the other.*—"I take this ball; I put it (II.) into this hand, and I put into the other the shilling. In which hand do you think the ball is? or in which do you think the shilling may be? (*Whatever answer the spectator makes, the performer shows him that he is mistaken, and that the whole is in the right hand; and this truth serves as a pretence to take a ball from the bag in putting the shilling back into it*).

The performer may, however, without breaking the connexion of these operations, dispense with this trick, and feign to drop the balls he plays with, which affords him a pretence for taking another.

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9. *With the ball remaining on the table, and that which is secretly taken out of the bag; to pass under a cup the two balls put under the others.*—The operator goes on with his discourse: "In order to give you still farther amusement, I take this ball and cut it in two (*taking it in his left hand, and holding the rod with his right; feigning to cut it, he puts afterwards the rod on the table, and brings back to his fingers ends the ball which he took out of the bag*). Nothing is so commodious as to be able in this manner to multiply the balls. When I am in want of money, I cut them again and again, until I may have had five or six bushels (*placing the two balls on the table*). Observe that there is nothing under this cup A. I put there (II.) this first ball: there is nothing more under the two other cups (*introducing the ball under the cup* B). I take this second ball, and I put it (II.) under the cup C: there is now a ball under these two cups A and C. I take away (VIII.) from this cup C this ball, and I throw it (IX.) through the middle cup B: observe that it is passed (*raising the cup* B, *and introducing there the second ball*). I command this, which is under the other cup A, to pass under the same cup B (*raising this cup, and showing that they are both there, and placing them on the table*).

10. *With the two balls which are upon the table. Two balls having been put under the same cup, to pass them under two others.*—"When I was at college, the tutor told me, it was necessary to know how to do my exercise in two ways. I have just now passed these two balls into the middle cup; I am now to make them go out; the one is not more difficult for me than the other. I take therefore these two balls, and place them under this cup B (*putting one ball under the cup, and conjuring the other*); observe that there is nothing under the cup A, nor under the other C (*introducing into this last the ball that he conjured*): I command one of these balls, which are under the middle cup, to pass under the one or the other of these two cups A and C. Behold it already gone (*raising the cup* B *to show that there is no more than a single ball; and taking, with the right hand, the ball which is underneath, he shows it, and puts it* (II.) *under the same cup* B). Let us see into which cup it has passed (*raising immediately the cup* A, *and introducing the ball that he took from the cup* B): here it is under this cup C (*raising the cup*); I command the other ball to pass under this cup A (*he raises it, and shows that it passed there*)." This trick is frequently done with three balls, but it appears much more extraordinary with two.

11. *With these two balls, a third which he shows, and a fourth secreted in his hands; to pass three balls under the same cup.*—"All this is but a trifle; I am going to show you another trick with three balls (*taking out of the bag a third ball, and placing it on the table, secreting at the same time a fourth in his hand*). Observe that there is nothing under any of these cups (*raising them, and introducing them under the cup* C). I take this first ball, and throw it (IX.) through this cup C. Observe that it is passed (*raising* (X.) *the cup with the right hand*); I take this second ball, and throw it (XI.) through the same cup. There it is passed (*raising* (X.) *again the cup*); I take the third, and I make it pass the

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same (*raising* (X.) *the cup, and showing that these are passed under all the three*).

12. *With the three balls remaining under the cup, and that held secretly in the hand; to pass two balls from one cup into another, at the choice of a person, without touching any of the cups.*—"Here is another in which I have never been able to comprehend any thing; but it will astonish you much (*raising the cup* C, *and taking away the three balls from their places, he puts them under each cup, and in raising the cup* C *introduces there the fourth ball which he held secretly in his hand*). I take this ball (*that which is under the cup* B), and I put it (II.) under the same cup. I take this (*the ball from the cup* A), and I place it (I.) under the same cup (*putting there also that which was secreted in his hand*): I take this last, and I throw it (IX.) through the cup C; and to show that I do not deceive you, behold it passed (*raising* (X.) *the cup that has been fixed upon, which suppose to be* C, *and showing that there are two*). I take again these two balls, and put them under the cup C (*putting really but one*): observe that there is no more under this cup B (*introducing there the ball that he had just taken away, and showing that he had no other in his hand*); I command one of these balls, which are under this cup C, to go and join that which is under this A. Observe that it is passed. There! (*raising the cup* C, *and returning the two balls under the same cup, and raising* C, *in order to show that there is but a single one; and he places it again under the same cup: he does not raise the cup* B *under which a ball remains*).

13. *With the three balls that were placed upon cups, and that which remains hidden under the middle cup; to pass under the same cup the balls put under the others.*—"I take this ball (*that which is upon the cup* C), and I put it (II.) under the same cup C; and I order it to pass into this cup B: there it is passed (*in raising this cup he introduces a third ball*). I take this third ball, and put it (II.) under this cup C; and I command it to pass into the cup B along the table, and in the sight of the spectators (*taking the rod in his left hand, feigning to show the way that it passed between the two cups*). You did not see it then? Here it is (*He draws it* (VIII.) *from the end of the rod, which appears to show it*). Go quickly (*throwing it* (IX.) *through the cup* B; *and showing that they are all three there, and that there is nothing under the two others; placing afterwards three of the balls on the table, and secreting the fourth in his hand*).

14. *With the three balls remaining upon the table, and that which is held secretly in his hand.—Multiplication of the balls.*

For this trick there must be a tin vase (see fig. 8.), at the bottom of which there must be contrived a false bottom A, which will fall down at pleasure; that is to say, in reversing it upon the table, by means of a small trigger placed at the base of one of the handles B, introducing previously between the false and true bottoms a dozen of balls. The operator goes on with his discourse.

"If any of the company believe in witches, I would give my advice that they should believe in them no longer; as what I am about to do is much more surprising than the feats of any witch.—I put (I.) these three balls under the three cups you see on the table: I take away (VII.) this first ball (*that which is under the cup* C), and I put it (II.) into this vase. I take this, and I also put it (II.) into the vase. I take away (VII.) this third (*that which is under the cup* A), and I throw it (II.) the same way." (*Every time that he raises one of the cups to take away the ball, he introduces that which always remains secreted in his right hand; and this he repeats, constantly taking out one ball and putting in another, till he has introduced all the twelve balls; after which he resumes his discourse*). "You imagine, perhaps, that I always make use of the same balls; but to prove the contrary, here they are, (*inverting the vase so as to turn them all out*).

In this trick, if the vase be well made, the inside may be shown, and it may even be previously inverted; in which case, it will not be supposed that any balls have been put into it.

15. *With the three balls remaining under each of the cups, and that which is hidden in his hand; to pass one ball under each of the three cups.*

"I put all these balls into my pocket. I take (VI.) this (*the one secreted in his hand*), and I make it pass through the table under this first cup C, (*conjuring it*). I take another from my bag, (*showing the same ball*). I make it pass in the same manner through this B, (*conjures it again*). I take a third (*showing still the same*), and I make it pass under this last cup A (*conjuring it*). Here are all the three passed (*turning over the cups, and in taking them up again introduces the ball that he has in his hand under the cup* B, *and puts the three balls upon the three cups.*

16. *With the three balls put upon each cup, and that which was introduced under the middle cup; to draw two balls through the same cup.*—"There will be wanted now only two balls." Here the operator takes that which is under the cup C, and puts it (II.) into his bag. He takes in the fingers of his right hand the ball which is on the cup B, showing it; and with the other covers the cup B, with that passing (IV.) there the ball which he feigned to put into his bag. He then takes the ball which is under the cup A with the right hand; and, showing a ball in each hand, tells the company that he put them (II.) under the cup A; though he actually puts but one, which he holds in his left. He then draws one of these balls through the same cup A, showing it, and placing it upon the cup C. He then raises the cup A, and takes the ball which is under it with his right hand, adding, "There remains but one more." While pronouncing these words, he puts it (II.) under the cup. "I take (adds he) the other ball," (*raising the cup, and showing that it is there no longer*); then, taking one of the two balls which seemed to remain alone, he puts it (II.) into his bag, saying, "I return this into my bag."

17. *With a ball which is hidden under the middle cup, another hidden under that which covers it, that which remains in the hand, and a fourth which is upon the table; to pass the same ball successively through the three cups.*—The preceding trick was only on purpose to prepare the spectators for this; as they now imagine that the performer played only with one ball. He may now address them in the following manner:

"I am now going to make a very pretty trick with this single ball. I forgot to show it to you at the beginning: I cover (XI.) these cups (*putting the cup*

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A *upon* C *and* B). I take (VI.) this ball, and I throw it (IX.) through the first cup;" (*raising* (X.) *the cup A with the right hand*). He then shows that it is passed between C and A; and, putting it in its place, he introduces there that which he has in his hand. "I take (says he) (VI.) this same ball, and I throw it through the other cup C;" and while he says so, he raises (X.) the cup C, showing that it has passed, introducing there that which he has in his hand, and putting it in the place of the former. "I take again (continues he) (VI.) this same ball, and I throw it (IX.) through that last cup B," (*raising* (IX.) *the cup* B). During which time he takes away the ball from under it with his left hand, then places it on the table, and returns the cup to its place, introducing there the ball which he has in his left hand.

18. *With the three balls which are under the cups, that which is on the table, and two which he takes from the bag; to pass under a cup the balls put under the two others without raising these last.*—The performer may proceed in his discourse in the following manner:

"Let us now return to the order of the entertainment which I have interrupted, and continue to play with three balls." He now takes two balls from his bag, by which means he in fact plays with six balls, though he pretends to play only with three. These two balls, together with that which remains on the table, he puts on the top of each cup. "I take (says he) (VI.) this ball, (*that which is on the cup* C). I throw it (IX.) through that cup: there it is passed." He now raises (X.) the cup, shows it; and thus has an oportunity of introducing the ball which he has in his hand, "I take (VI.) this (*the ball which is under the cup* B), and throw it (IX.) through the cup B." At this he raises the cup with his left hand, showing that it has passed, and covering it again. "I take again (VIII.) this ball from the same cup, and throw it (IX.) through that C: observe that it is passed." Then, raising up (X.) the cup C, showing that there are then two there, he introduces other two which he had in his hand. "I take (says he) (IV.) this ball (*that which is under the cup* A), and I throw it (IX.) through the same cup A. There! it is passed," (*raising the cup* C); after which he shows the three balls, and introduces there that which was in his hand, putting the three balls upon the table.

19. *With the three balls which remain under the cups, and the three others which remain upon the table; to pass separately the three balls through each cup.* In this manœuvre the performer puts again the three balls which are upon the table upon the top of each cup. He takes that which is on the cup C, and throws it (IX.) through the same cup; and while he announces this to the company, he raises (X.) the cup: taking away (VIII.) the ball, showing that it has passed, introducing there that which was in his hand, and putting the same ball upon the same cup. He then takes that which is upon the cup B, and throws it (IX.) through the same cup; shows that it is passed, takes it away (VII.) and introduces the ball that was in his hand under this cup, putting it in like manner on the cup. Then he takes the ball which is on the cup A, and throws it (IX.) through the same cup A. As he announces its passage he raises the cup, taking away (VII.) and showing the ball; introducing in the same manner that which was in his hand; putting this first at the top of the cup A, and then shows that it is not in his hand, and that he has but three balls.

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20. *With the three balls remaining upon the table, and those which are under each cup. Having put the balls into the bag, to make them return under the cups.*—"I take these three balls, and I return them into my bag, (*keeping one in his hand*). Behold to what all is reduced that I had to show you for your amusement. I did know some more very pretty tricks, but I have forgot them. (*Pretending to muse for a moment*): Ah! I still remember two or three very pleasing ones. Come, my little balls! Return under the cups, (*turning over the cups*). See how nimble they are, and obedient at the same time;" (*covering them again with the cups*).

21. *With the three balls which are under the cups, and that in his hand; to pass the balls through the two cups.*—Here the operator begins with taking away (VII.) the ball which is under the cup C; he covers it with the cup B; and passes (III.) the other ball which he has in his right hand between the two cups. He then takes (VI.) the ball which he had in his left hand, and throws it (IX.) between the two cups B and C. In announcing its passage he raises the cup (X.), shows that it is passed, and introduces the ball in his hand. He then takes the ball under the cup B, and throws it (IX.) through the two cups C and B. Announcing to the company its passage, he raises (X.) the cup, and shows that there are two balls, introducing (III.) at the same time the third. He then takes the last ball, viz. that which is under the cup A, covers again with the left hand the two cups B and C, and throws (IX.) the third ball through these two cups. He then announces their passage, raises the two cups, and shows the three balls, covering again the cup C with the two others.

22. *With the three balls which are upon the cup* C, *and the one in his hand; to take out the three through two cups.*—"I take (says the performer) (VIII.) the first ball, and put it (II.) into my bag. I take (VIII.) in the same manner the second, and I put it also into my bag. I take (VIII.) the third, and I put it into my bag, (*putting in really that which he had in his hand*). While he desires the spectators to observe that there are no more in the cups, he raises the cup A with the left hand, and, putting it in its place, raises with the right hand the cup C. In supporting it with the cup B, he puts it down quickly, and a little on the side of B, and at the same time places C on the table, under which will be found the three balls, which had not time to separate.

23. *With the three balls remaining under the middle cup, and three others taken out of the bag; to pass, in one action, three balls through a cup.*—This trick is begun by the performer taking three balls from his bag, and putting them on the top of the cup B, which he covers with the cup A. Ordering them to disappear and to pase under the cup C, he takes away very suddenly with the left hand the cup B, as is done in the preceding trick, leaving in the middle of the play the cup C, under which the balls are found. Taking them then away, and replacing them on the same cup, he makes them return again in the same manner under the

cup

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cup C. At last he takes the three balls, and putting them in his bag, pretends to pass them through the table under the cup where the others were. He then returns two or three of these last balls into his bag, and takes two white balls, which he puts upon the table.

24. *With the black ball remaining on the table, two other white balls, and a black one which he holds secretly in his hand; to pass three balls from one cup into another.*

N. B. To make the balls white, they are rubbed with a little chalk instead of being blackened with the candle.

"Let us now (says the operator) have a trick to prove that I do not conjure the balls. There is nothing under this cup C, (*introducing the black ball that was in his hand*). There is no great thing under this B. I place there these three balls, (*the three which are upon the table, of which he conjures the white one*). There is nothing more under this third cup A, (*introducing there the white ball*). I order one of these two white balls which are under the cup B, to pass under this A." With these words he raises the cup B; and taking the white ball in the fingers of his left hand, and the black one in those of the right, he shows them, saying, "Observe that there is but one white one. I put again these two balls under the cup B." While speaking thus he puts the white one under the cup, and conjures the other, while feigning to put it in with that of the left hand. He then announces its passage; and while he does so, raises the cup A, and introduces the black ball. Commanding then the black ball to pass under the cup A, he raises the cup B, takes in his right hand fingers the ball which is there, and shows it. "I put it again (says he) (II.) under this cup (*conjuring it*); and I show you that it is passed under this A, (*introducing there the white ball*). I order at last the white ball, which is under this cup B, to pass into this A." While telling the company that it is passed, he raises the cup A, and puts the three balls upon each cup, the black one upon the middle.

25. *With the three balls put at the top of the cups, and that which has been inserted under one of them in the preceding trick; to change the colour of the balls.* The operator goes on with his discourse: "If there is any one here who knows how to play the cups and balls, he will do well to observe, that it is not possible to do this trick by the common method, and with three balls only. However I have no more, (*showing his hands*). I take this white ball (*that which is upon the cup* C), and I throw it (IX.) through this cup (*the same under which he left a black ball in the preceding trick.*) I take this black ball (*with the left hand fingers*); there is nothing under this cup B, (*introducing there the white ball*). I throw it (IX.) through this cup B, (*taking again the ball into his right hand fingers*). I take this other white ball, (*with his left hand fingers*). There is nothing under this cup A, (*introducing the black ball*): I throw it (IX.) through the cup A, (*taking it again into his right hand fingers to conjure it*). Observe that they have all changed their colour," (*covering each of them with their cups*).

26. *With the three balls which are left under the cups, two white balls, and a black one that he took trick by trick from his bag; to change the sizes of the balls.*—In performing this trick the operator takes away the white ball which is under the cup C with his left hand fingers, and raising the cup with his right, introduces there a white ball which he took out of his bag. The white ball which he introduces is kept in his hand with the fourth and little finger; and he raises the cup in the same manner as when he introduces the balls. In turning over the cup afterwards, he advances his hand to introduce this ball. These balls should be filled with horse hair or paper, so that they may be very light, and make no noise. The operator then tells his company, that he makes the ball pass through the table under the same cup; and while he speaks thus, he takes the ball again in his right hand, and while putting his hand under the table, he takes a black ball out of the bag. He then takes away the ball from the cup B, introducing the black one in its stead. He then tells the spectators, that he makes it repass through the table; and, while he tells them so, he takes a white ball; then, while taking away that which is under the cup A, he introduces that ball, making it repass in the same manner through the table, and at last shows them to the company, and covers them with their cups.

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27. *With the three balls which are under the cups, two other black balls, and a white one that was taken trick by trick from his bag; to pass the balls from one cup into another.*—"Observe well (says the operator), that there are two white balls under these two cups A and C, and a black one under this (*raising the cups*). I cover again these three balls (*covering each of them with a cup*). I make to pass out through the table the white ball which is under the cup C." Here he takes a white ball from his bag; and in order not to fail, the black and white balls should be in separate pockets. Having taken out the ball, he puts the first into his bag, telling the company that there is now nothing under the cup C; and while he says so, he raises it, holding the ball with his little finger, proceeding in his discourse as follows: "I take away this ball (*that which is under the cup* A), and I pass it through the table under the cup C (*taking a black ball from his bag*)." While the passage of this ball is announced, he raises the cup C to take it away and show it; introducing there this black ball, "I put it again (says he) this other white ball into my bag, and I command the black one which is under the cup B to pass under this. It is no longer under this cup;" and while he says so, he raises the cup B, in supporting with his little finger the ball which remains there. Announcing its passage, he raises the cup C and shows the ball; taking it afterwards into the left hand, throws it into the air; returning it into his right hand, and feigning to throw it into the air a second time, he lets it fall into his bag; casting his eyes upwards and downwards as if he saw it fall upon the cup B; he raises this cup, and shows it to the spectators, as the former, passed through the cup.

Sect. II. *Performances with the Cards.*

Previous to the performances with cards, it will be necessary to explain the method of making the pass; that is, bringing a certain number of cards from the bottom

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bottom of the pack to the top; as many of these performances depend on that manœuvre.

Of making the pass.

1. Hold the pack of cards in your right hand, so that the palm of your hand may be under the cards: place the thumb of that hand on one side of the pack, the first, second, and third fingers on the other side, and your little finger between those cards that are to be brought to the top and the rest of the pack. Then place your left hand over the cards, in such a manner that the thumb may be at C (fig. 20, 21.), the fore finger at A, and the other fingers at B. Plate CCXCI.

The hands and the two parts of the cards being thus disposed, you draw off the lower cards confined by the little finger and the other parts of the right hand, and place them, with an imperceptible motion, on the top of the pack.

It is quite necessary, before you attempt any of the experiments that depend on making the pass, that you can perform it so dexterously that the eye cannot distinguish the motion of your hand; otherwise, instead of deceiving others, you will expose yourself. It is also proper that the cards make no noise, as that will occasion suspicion. This dexterity is not to be attained without some practice.

There is a method of preparing a pack of cards by inserting one or more that are a small matter longer or wider than the rest; which preparation will be necessary in several of the following experiments.

The card of divination.

2. Have a pack in which there is a long card; open the pack at that part where the long card is, and present the pack to a person in such a manner that he will naturally draw that card. He is then to put it into any part of the pack, and shuffle the cards. You take the pack, and offer the same card in like manner to a second or third person; observing, however, that they do not stand near enough to see the card each other draws. You then draw several cards yourself, among which is the long card, and ask each of the parties if his card be among these cards, and he will naturally say Yes, as they have all drawn the same card. You then shuffle all the cards together, and cutting them at the long card, you hold it before the first person, so that the others may not see it, and tell him that is his card. You then put it again into the pack, and shuffling them a second time, you cut again at the same card, and hold it in like manner to the second person, and so of the rest (A).

If the first person should not draw the long card, each of the parties must draw different cards; when cutting the pack at a long card, you put those they have drawn over it; and seeming to shuffle the cards indiscriminately, you cut them again at the long card and show one of them his card. You then shuffle and cut again, in the same manner, and show another person his card, and so on: remembering, that the card drawn by the last person is the first next the long card, and so of the others.

This experiment may be performed without the long card, in the following manner. Let a person draw any card whatever, and replace it in the pack: you then make the pass, and bring the card to the top of the pack, and shuffle them without losing sight of that card. You then offer that card to a second person, that he may draw it, and put it in the middle of the pack. You make the pass and shuffle the cards a second time in the same manner, and offer the card to a third person, and so again to a fourth or fifth, as is more fully explained further on.

Performances with the Cards.

The four confederated cards.

3. You let a person draw any four cards from the pack, and tell him to think on one of them. When he returns you the four cards, you dexterously place two of them under the pack and two on the top. Under those at the bottom you place four cards of any sort; and then, taking eight or ten from the bottom cards, you spread them on the table, and ask the person if the card he fixed on be among them. If he say No, you are sure it is one of the two cards on the top. You then pass those two cards to the bottom, and drawing off the lowest of them, you ask him if that is not his card. If he again say No, you take that card up, and bid him draw his from the bottom of the pack.

If the person say his card is among those he first drew from the bottom, you must dexterously take up the four cards that you put under them, and, placing those on the top, let the other two be at the bottom cards of the pack, which you are to draw in the manner before described.

Divination by the sword.

4. After a card has been drawn, you place it under the long card, and by shuffling them dexterously you bring it to the top of the pack. Then lay or throw the pack on the ground, observing where the top card lies. A handkerchief is then bound over your eyes, in such a manner however that you can see the ground, which may be easily done. A sword is then put into your hand, with which you touch several of the cards, seemingly in great doubt, but never losing sight of the top card, in which at last you fix the point of the sword, and present it to him who drew it. Two or three cards may be discovered in the same manner, that is, by placing them under the long card, and then bringing them to the top of the pack.

The transmutable cards.

5. You must have in the pack two cards of the same sort, suppose the king of spades.. One of these is to be placed next the bottom card, which may be the seven of hearts, or any other card. The other is to be placed at top. You then shuffle the cards without displacing those three cards, and show a person that the bottom card is the seven of hearts. Then drawing that card privately aside with your finger, which you have wetted for that purpose, you take the king of spades from the bottom, which the person supposes to be the seven of hearts, and lay it on the table, telling him to cover it with his hand. You then shuffle the cards again, without displacing the first and last card, and passing the other king of spades at the top to the bottom, you show it to another person. You then draw that

(A) There is frequently exhibited another experiment, similar to this, which is by making a person draw the long card; then giving him the pack, you tell him to place his card where he pleases and shuffle them, and you will then name his card or cut the pack where it is. You may also tell him to put the pack in his pocket, and you will draw the card; which you may easily do by the touch.

Performances with the Cards.

that privately away; and taking the bottom card, which will then be the seven of hearts, you lay that on the table, and tell the second person, who believes it to be the king of spades, to cover it with his hand.

You then command the seven of hearts, which is supposed to be under the hand of the first person, to change into the king of spades; and the king of spades, which is supposed to be under the hand of the second person, to change into the seven of hearts; and when the two parties take their hands off, and turn up the cards, they will see to their no small astonishment, after having so carefully observed the bottom cards, that your commands are punctually observed.

The incomprehensible transposition.

6. Take a card, the same as your long card, and rolling it up very close, put it in an egg, by making a hole as small as possible, and which you are to fill up carefully with white wax. You then offer the long card to be drawn; and when it is replaced in the pack, you shuffle the cards several times, giving the egg to the person who drew the card, and, while he is breaking it, you privately withdraw the long card, that it may appear, upon examining the cards, to have gone from the pack into the egg. The experiment may be rendered more surprising by having several eggs, in each of which is placed a card of the same sort, and then giving the person the liberty to choose which egg he thinks fit.

This deception may be still further diversified, by having, as most public performers have, a confederate, who is previously to know the egg in which the card is placed; for you may then break the other eggs, and show that the only one that contains a card is that in which you directed it to be.

To name several cards that two persons have drawn.

7. Divide a piquet pack of cards into two parts by a long card. Let the first part contain a quint to a king in clubs and spades, the four eights, the ten of diamonds, and ten of hearts; and let the other part contain the two quart majors in hearts and diamonds, the four sevens, and the four nines (B).

Then shuffle the cards, but observe not to displace any of those cards of the last part which are under the long card. You then cut at that card, and leave the pack in two parts. Next, present the first of those parts to a person, and tell him to draw two or three cards, and place the remainder on the table. You present the second parcel in like manner to another. Then having dexterously placed the cards drawn by the first person in the second parcel, and those drawn by the second person in the first parcel, you shuffle the cards, observing to displace none but the upper cards. Then spreading the cards on the table, you name those that each person drew; which you will very easily do, by observing the cards that are changed in each parcel.

The two convertible aces.

8. On the ace of spades fix, with soap, a heart, and on the ace of hearts, a spade, in such a manner that they will easily slip off.

Show these two aces to the company; then taking the ace of spades, you desire a person to put his foot upon it, and as you place it on the ground, draw away the spade. In like manner you place the seeming ace of hearts under the foot of another person. You then command the two cards to change their places; and that they obey your command, the two persons, on taking up their cards, will have ocular demonstration. A deception similar to this is sometimes practised with one card, suppose the ace of spades, over which a heart is placed slightly. After showing a person the card, you let him hold one end of it, and you hold the other, and while you amuse him with discourse, you slide off the heart. Then laying the card on the table, you bid him cover it with his hand. You then knock under the table and command the heart to turn into the ace of spades. By deceptions like these, people of little experience and much conceit are frequently deprived of their money, and rendered ridiculous.

Performances with the Cards.

The fifteen thousand livres.

9. You must be prepared with two cards, like those represented by fig. 22. and with a common ace and a five of diamonds.

The five of diamonds and the two prepared cards are to be disposed as in fig. 23. and holding them in your hand, you say, "A certain Frenchman left 15,000 livres, which are represented by these three cards, to his three sons. The two youngest agreed to leave their 5000, each of them, in the hands of the elder, that he might improve it." While you are telling this story, you lay the 5 on the table, and put the ace in its place, and at the same time artfully change the position of the other two cards, that the three cards may appear as in fig. 24. You then resume your discourse, "The eldest brother, instead of improving the money, lost it all by gaming, except 3000 livres, as you here see." You then lay the ace on the table, and, taking up the 5, continue your story: "The eldest, sorry for having lost the money, went to the East Indies with these 3000, and brought back 15,000." You then show the cards in the same position as at first, in fig. 22.

To render this deception agreeable, it must be performed with dexterity, and should not be repeated, but the cards immediately put in the pocket; and you should have five common cards in your pocket, ready to show, if any one should desire to see them.

To tell the number of cards by the weight.

10. Take a parcel of cards, suppose 40, among which insert two long cards: let the first be, for example, the 15th, and the other the 26th, from the top. Seem to shuffle the cards, and then cutting them at the first long card, poise those you have cut off in your hand, and say, "there should be here 15 cards." Cut them again at the second long card, and say, "There are here only 11 cards." Then poising the remainder, you say, "here are 14 cards."

To name several cards on which different persons have fixed.

11. *Several different cards being shown to different persons, that each of them may fix on one of those cards; to name that on which each person has fixed.*—There must be as many different cards shown to each person as there are persons to choose: therefore, suppose there are three persons, then to each of them you must show three cards; and telling the first person to retain one in his memory, you lay those three cards down, and show three others to the second person, and so to the third.

(B) The cards may be divided in any other manner that is easy to be remembered.

Performances with the Cards.

third. You then take up the first person's cards, and lay them down one by one, separately, with their faces upward. You next place the second person's card over the first, and in like manner the third person's card over the second's; so that in each parcel there will be one card belonging to each person. You then ask each of them in which parcel his card is; and when you know that, you immediately know which card it is; for the first person's card will always be the first, the second person's the second, and the third person's the third, in that parcel where they each say his card is.

This experiment may be performed with a single person, by letting him fix on three, four, or more cards. In this case you must show him as many parcels as he is to choose cards, and every parcel must consist of that number, out of which he must fix on one; and you then proceed as before, he telling you the parcel that contains each of the cards.

The magic ring.

12. Make a ring large enough to go on the second or third finger (fig. 15.) in which let there be set a large transparent stone, to the bottom of which must be fixed a small piece of black silk, that may be either drawn aside or expanded by turning the stone round. Under the silk is to be the figure of a small card.

Then make a person draw the same sort of card as that at the bottom of the ring, and tell him to burn it in the candle. Having first shown him the ring, you take part of the burnt card, and reducing it to powder, you rub the stone with it, and at the same time turn it artfully about, so that the small card at bottom may come in view.

The magic tea caddy.

13. *To change one card into another.*—Provide a mahogany tea caddy about four or five inches deep, and long enough to admit a common sized playing card: (see fig. 9.). This caddy must be furnished with a moving false bottom B, moveable upon hinges on the inside edge of the front A. This bottom may be made of brass, tin, or lead; and the false bottom must be so exactly fitted, that it cannot, from a slight view, be distinguished from the other. The inside of both caddy and false bottom ought to be lined with black or other dark-coloured cloth or velvet, so that it may not make any noise in falling down. It would be proper that the false bottom should rise with a spring towards the front, and it must be kept tight, with a brass spring catch (*a*, fig. 10.) screwed to the left side of the box near the top, and which is hid by the cloth covering. The end of this spring projects a little into the front. It is driven back, to let go the false bottom by means of a small bent wire *bb* let into the front of the caddy; and this pin is moved by the bolt *c*, which, when the box is locked, shoots out against it, by reason of the spring being driven in; by which means the bottom springs down, and covers the card placed in the box.

Plate CCXC.

Before you attempt to show any trick with this caddy, a card must be placed, in the inside between the front A and the false bottom B, springing up the bottom afterwards against the front; after which it is ready for use, and shown openly to the company without any danger of a discovery.

Two persons may now be desired to draw two different cards from a pack, one of which must be the same with the one concealed in the caddy. Taking this card from the person who drew it, you put it in the pack, pretend to shuffle it, but keep the card either uppermost or undermost, so that you can easily find it afterwards. Desiring then the other person to come forward and put his card very attentively into the caddy, you in the mean time secretly convey away from the pack the card drawn by the other; then, giving him the key, you desire the caddy to be locked up. After some pretended conjurations, desire him to unlock it again and take out the card; which he will find not to be his, but that drawn by his neighbour: his card being apparently vanished from the caddy, as the other is from the pack.

Performances with the Cards.

The two magic port-folios.

14. Provide two pieces of pasteboard A and B (fig. 11.) of equal dimensions, $3\frac{1}{2}$ inches long and three broad. Place these beside one another, as shown in the figure. Take then a very smooth silk ribbon, and put a band of it from C to E towards the edge of the pasteboard A, and another from D to F in such a manner as to come beyond the pasteboard, and to admit of being folded over at the two ends. This must be glued on the back of the board A at the places C and D, and at the back of the board B at the places E and F. Place two other bands in a similar manner on the pasteboard B, turning them over on the back of the same board at the places I and L, and at the back of A at the places G and H. These two bands should fall in the inside of the pasteboard, according to the breadth of the ribbons. The two pasteboards being now placed the one upon the other, will form a kind of port-folio, one of the sides of which will always be hinged when the other is opened. Four small bands of the same ribbon are to be put at the four extremities of the sides MNQR of the two pieces of pasteboard; observing that they pass below the bands already placed. Glue their ends in the same manner as their ends at the back of the boards, ornamenting also the two sides O and P of the pasteboard B with pieces of the same ribbon; but these last six bands are of no use in the performance.

Two pieces of paper folded like the cover of a letter must now be provided, large enough to cover the two ribbons GI and HL, as well as the space contained within them. Glue one of these upon the two ribbons, and apply the other below this; so that the uppermost of these two wrappers may fall exactly over the other, enclosing and hiding the two ribbons entirely. A second port-folio similarly constructed is now to be provided, and both of them covered with coloured paper from the sides where the ribbons are glued and folded.—The deceptions with these port-folios are as follows:

(1.) *Two cards, chosen at random, having been shut up in two separate places; to make them pass reciprocally from the one into the other.*—The port-folios being constructed in the manner above described; if you open one of them either on the one side or on the other, one of the paper wrappers will always be visible; and thus it will naturally be supposed that there is no more but one. Having then secretly enclosed a card in each of the wrappers of the port-folios, procure a pack of cards that has but two sorts, and cause two persons fairly draw two cards similar to the first. Present then a port-folio, open, to the first person who drew a card

Performances with the Cards.

similar to that which was placed in the second, desiring him to place it in the wrapper which he finds vacant. Take back then the port-folio; and, in placing it on the table, artfully turn it over: having placed likewise in the vacant wrapper of the second port-folio the card drawn by the second person; and putting it in the same way upon the table, command the cards reciprocally to pass from the one port-folio into the other; and open them so that each of the persons may take out the card which the other inserted.

(2.) *A card being shut up in the port-folio; to make it return into the pack.*—To perform this, procure a pack which has two cards of the same kind. One of these is to be openly drawn, and the person who has done so must be told to shut it up under the wrapper of one of the port-folios; and inform him that you will make it return into the pack. Give him the port-folio to blow upon; and on opening it, present him with the empty wrapper, to show him that his card is not there; after which, presenting him with the pack, he will find there the other card, which he will naturally imagine to be the one he put into the wrapper.

(3.) *To make an answer appear to a question secretly written.*—Transcribe on different cards a certain number of questions, and on others the same questions with their answers; taking care to have the handwriting as much alike as possible, so that no difference can easily be perceived. The same caution must be observed with regard to the cards themselves; which, for that reason, ought to be plain ones. Having written with a pencil at the bottom of the first questions their corresponding answers, shut up one of them secretly in the port-folio; and presenting them to any person, let him draw as by chance that which is similar to the one thus shut up. Make him then place in the other wrapper the question which he had drawn; and telling him that you are about to write an answer even through the port-folio, take a glass, and pretend to read in it the answer to the question. Open it afterwards, so that he may take out the other card himself, and he will imagine it to be the one he selected.

In performing this trick, it will be proper to have a port-folio of the same kind with the two described, which opens only at one side, and which consequently has but one wrapper. This must be shown to such as seem to be too inquisitive, and will be of use to prevent them from entertaining any idea that the folio opens upon both sides. The former must therefore be immediately put into the pocket, in order to give an opportunity of drawing out the other in case the port-folio should be asked for.

The card in the mirror. Plate CCXCI.

15. Provide a mirror, either round, as A (fig. 18.) or oval, the frame of which must be at least as wide as a card. The glass in the middle must be made to move in the two grooves CD and EF, and so much of the quicksilver must be scraped off as is equal to the size of a common card. You will observe that the glass must likewise be wider than the distance between the frame by at least the width of a card.

Performances with the Cards.

Then paste over the part where the quicksilver is rubbed off a piece of pasteboard, on which is a card that must exactly fit the space, which must at first be placed behind the frame.

This mirror must be placed against a partition, through which is to go two strings, by which an assistant in the adjoining room can easily move the glass in the grooves, and consequently make the card appear or disappear at pleasure (c).

Matters being thus prepared, you contrive to make a person draw the same sort of card with that fixed to the mirror, and place it in the middle of the pack: you then make the pass, and bring it to the bottom; you then direct the person to look for his card in the mirror, when the confederate behind the partition is to draw it slowly forward, and it will appear as if placed between the glass and the quicksilver. While the card is drawing forward, you slide off the card from the bottom of the pack, and convey it away.

The card fixed to the mirror may easily be changed each time the experiment is performed. This experiment may also be made with a print that has a glass before it and a frame of sufficient width, by making a slit in the frame through which the card is to pass; but the effect will not be so striking as in the mirror.

The marvellous vase.

16. Place a vase of wood or pasteboard AB (fig. 17.) on a bracket L, fixed to the partition M. Let the inside of this vase be divided into five parts, *c*, *d*, *e*, *f*, *g*; and let the divisions *c* and *d* be wide enough to admit a pack of cards, and those of *e*, *f*, *g*, one card only.

Fix a thread of silk at the point H, the other end of which passing down the division *d*, and over the pulley I, runs along the bracket L, and goes out behind the partition M.

Take three cards from a piquet pack, and place one of them in each of the divisions *e*, *f*, *g*, making the silk thread or line go under each of them. In the division *c*, put the pack of cards from which you have taken the three cards that are in the other divisions.

Then take another pack of cards, at the top of which are to be three cards of the same sort with those in the three small divisions; and making the pass, bring them to the middle of the pack, and let them be drawn by three different persons. Then give them all the cards to shuffle; after which place the pack in the division *d*, and tell the parties they shall see the three cards they drew come, at their command, separately out of the vase.

An assistant behind the partition then drawing the line with a gentle and equal motion, the three cards will gradually rise out of the vase. Then take the cards out of the division *c*, and show that those three cards are gone from the pack.

The

(c) This experiment may be performed without an assistant, if a table be placed against the partition, and the string from the glass be made to pass through a leg of it, and communicate with a small trigger, which you may easily push down with your foot; and at the same time wiping the glass with your handkerchief, as if to make the card appear the more conspicuous. It may also be diversified, by having the figure of a head, suppose that of some absent friend, in the place of the card.

Performances with the Cards.

The vase must be placed so high that the inside cannot be seen by the company. You may perform this experiment also without an assistant, by fixing a weight to the end of the silk line, which is to be placed nn a support, and let down at pleasure by means of a spring in the partition.

The divinating perspective glass.

17. Let a small perspective glass be made, that is wide ennugh, at the end where the object glass is placed, to hold a table similar to the following.

1.131	10..132	19.133
2.231	11..232	20.233
3.331	12..332	21.333
4.121	13..122	22.123
5.221	14..222	23.223
6.321	15..322	24.323
7.111	16..112	25.113
8.211	17..212	26 213
9.311	18..312	27.313

Take a pack of cards that consists of 27 only, and giving them to a person, desire him to fix nn any one, then shuffle them, and give the pack to you. Place the 27 cards in three heaps, by laying down one alternately on each heap; but before you lay each card down, show it to the person, without seeing it yourself; and when the three heaps are finished, ask him at what number, frnm 1 to 27, he will have his card appear, and in which heap it then is? Then look at the heap through the glass, and if the first of the three numbers which stands against that number it is to appear at be 1, put that heap at top; if the number be 2, put it in the middle; and if it be 3, put it at bottom. Then divide the cards into three heaps, in the same manner, a second and third time, and his card will then be at the number he chose.

For example: Suppose he desire that his card shall be the 20th from the top, and the first time of making the heaps be says it is in the third heap: you then look at the table in the perspective, holding it at the same time over that heap, and you see that the first figure is 2; you therefore put that figure in the middle of the pack. The second and third times you in like manner put the heap in which he says it is, at the bnttom, the number each time being 3. Then looking at the pack with your glass, as if to discover which the card was, you lay the cards down one by one, and the 20th card will be that he fixed on.

You may show the person his card in the same manner, without asking him at what number it shall appear, by fixing on any number ynurself.

The foregoing experiments with the cards will be found sufficient to explain most others of a similar nature that have or may be made: the number of which is very great. To perform those we have described requires no great practice; the two principal points are, the making the pass in a dexterous manner, and a certain address hy which you influence a person to draw the card you present. Those that are performed by the long card are in general the most easy, but they are confined to a pack of cards that is ready prepared; whereas those which depend on making the pass, may be performed with any pack that is offered.

Experiments with Sympathetic Inks.

Sect. III. *Experiments with Sympathetic Inks.*

[See *Sympathetic Ink.*]

Experiments with Class I.

The book of fate.

1. Make a book of 70 or 80 leaves; and in the cover at the end of it let there be a case which opens next the binding, that it be not perceived.

At the top of each right hand page write any question you please; and at the beginning of the book let there be a table of all those questions, with the number of the page where each is contained. Then write with common ink on separate papers, each about half the size of the pages in the book, the same questions that are in the book, and under each of them write, with the ink made of the impregnation of saturn, or the solution of bismuth, the answer.

Soak a double paper in the vivifying liquor made of quicklime and orpiment, or the phlogiston of the liver of sulphur, and place it, just before you make the experiment, in the case that is in the cover of the book.

Then deliver some of the papers on which the questions are wrote to the company; and, after they have chosen such as they would have answered, they put them in those leaves where the same questions are contained, and, shutting the book for a few minutes, the sulphureous spirit with which the paper in the cover of the book is imbibed, will penetrate the leaves, and make the answers visible, which will be of a brown colour, and more nr less deep in proportion to the time the book has been closed (D).

The marvellous portrait, fig. 17.

2. Make a box about four inches long, and three wide, as ABCD, and quite shallow. Let it shut with hinges and fasten with a hook; and let it have two bottoms, the lowest of woood, that draws out by a groove, and the uppermost of pasteboard. Between these two bottoms is to be placed a paper dipped in the vivifying liquor mentioned in the last experiment. Let there be also a board of the same size with the inside of the box, which being placed in it may press a paper against the pasteboard bottom.

Then take several pieces of paper of the same size with the inside of the box, and draw on them the figures of men and women, in different attitudes and employments, as walking, riding, reading, writing, &c. These figures must be drawn with a new pen, or pencil, dipped in the impregnation of saturn.

Being thus provided, and having privately placed the paper dipped in the vivifying liquor between the two bottoms, you tell a person you will show him what an

(D) If a weight be placed upon the book, the effect will be the sooner produced. Or you may put the book in a box that will press it close down.

Experiments with Sympathetic Inks.

absent friend of his is doing at the present hour. You then give him the paper adapted to the employment you intend, and tell him to write his friend's name at the bottom, that you may not change the paper. Then placing the paper next the pasteboard bottom, and putting the piece of wood over it, you shut the box. After amusing him with discourse for three or four minutes, you take out the paper, when he will see his friend in the employment you have assigned him.

The artificial hand.

3. Let a workman make a hand of wood, as in fig. 16. fixed at the end next the elbow to the piece E, the ends of which go through the screws CD and EF. The fore and middle fiogers, and the thumb, are to be moveable at their joints. There must go a wire through the arm, that is fixed at one end to the fore finger, and at the other to the piece E, round which it is to move: under the two joints of the two fingers are also placed two small springs, which are to raise it up.

To the fore finger and thumb fix two small rings, through which a pin may be put, so as not to impede their motion. Under the arm at the point I, place a small brass roller, which serves to sustain the arm.

The pedestal on which this hand is placed must be at least a foot long, if the hand be of a natural size, and about eight inches wide. The pedestal must be hollow, and at the part ST there must be an opening about three inches long and two inches wide; the whole pedestal may be covered with a thin stuff, by which the hole will be concealed. There is to be a valve, or sort of trap door, on the inside of the pedestal, which is to fasten against the opening.

Over the hand and pedestal place a glass frame, as in the figure; cover the hand with fine leather of flesh colour, and decorate the arm with a ruffle and cuff, which will entirely conceal the machinery.

Then take a number of cards, and write on them different questions; and on the same number of papers write, with the impregnation of lead, the answers. Give the cards to any one, and let him choose a question; and you place the paper with the answer under the pen in the hand, letting him first see there is no writing on it (E). Now the pedestal being placed against a partition, the end F is to go through it. Therefore an assistant upon a signal given, turns a handle fixed to F; and, as the piece E turns round, the wires that move the fingers and thumb are alternately lengthened and shortened, by which their joints are kept in continual motion; and the screw at the same time turning gently from F towards G, gives the whole arm a motion which very much resembles that of nature (F).

The hand and pen serve here merely to assist the illusion: but if a bit of sponge, dipped in the vivifying liquor, be placed at the end of the pen, as it goes over the writing on the paper, it will make it become gradually visible, and in this case the trap door and dipped paper may be omitted (G).

Experiments with Sympathetic Inks.

Deception with Class II.

The writing against the wall.

4. Take several pieces of paper, of a size that you can put in any book that will go into your pocket, and write at the top of each of them a question, with common ink, and under it write the answer with the solution of gold or silver. Give any of these papers, closely wrapt up, to a person, and tell him to place it against the wall of his chamber, and keeping the door locked he will next day find the answer wrote on it.

As the gold ink will sometimes give a yellow cast to the paper, you may previously give a slight tincture of that kind to the papers you use for this purpose.

Deception with Class III.

Magical vegetations

5. On different papers draw the figures of several leaves or flowers with one of the colourless juices mentioned: then take one of the corresponding leaves or flowers, and laying it on an iron plate, over a chafing-dish of hot coals, let it burn to ashes. Put these ashes into a sieve, in which there is some very fine steel filiogs, and sift them over the paper on which the flower is drawn, when they will adhere to the glutinous liquor, and form an exact representation of the figure of the leaf or flower.

Deceptions with Class IV.

The talisman, fig. 7.

6. Make a little triangular box, each side of which is to be about five inches, and let its inside be divided into three parts. The first part A, which makes the bottom of the box, it to be covered by the second part B, in form of a case, and let the top C exactly cover the part B, as is expressed in the figure and the profiles.

Upon the bottom of the box let there be a plate of copper about one-twentieth of an inch thick, on which let there be a number of hieroglyphic characters contiguous to each other, and cut in different sorts of metal.

On the top of the cover place a knob O, that goes through it, and to which the copper triangle Q is to be fixed occasionally, in such a manner as it may go into the case B. There must be a space of one quarter of an inch between the triangle Q and the bottom of the case B; into which another plate of copper, of that thickness, may be placed.

The outside of this talisman may be decorated with uncommon

(E) The paper dipped in the vivifying liquor is to be previously placed against the opening in the table, and supported by the trap door.

(F) This might be performed without an assistant, by means of a trigger placed in the leg of the table, and communicating with the handles, which the operator might thrust down with his foot. Where expence is not regarded, there may be a complete figure of a man in wood, or plaster of Paris, seated by the table.

(G) You may also have a glass ink-stand with some of the vivifying liquor, into which the pen may be dipped, and it will then appear to write with common ink. The spectators should not be permitted to come very near this machine, which may be applied to several other purposes.

Experiments with Sympathetic Inks.

uncommon figures or characters, to give it the appearance of greater mystery.

On several pieces of paper, of the same size with the inside of the talisman, write different questions in common ink, and write the answers in those different sorts of sympathetic ink that appear when heated, observing that each word of the answer is to be wrote in a different ink.

Having properly heated the triangle, and placed it under the cover, you introduce the talisman, and tell any one of the company to choose one of the papers on which the questions are wrote, and place it in the talisman, and he will immediately have an answer wrote on that paper, the words of which will be of different colours, according to the different metals of which the talisman is composed. The paper being placed in the talisman, and the cover placed over it, the heat of the triangle will make the answer visible in a few moments. This experiment may be repeated if the triangle be made sufficiently hot; and two papers may be placed in the talisman at the same time.

This deception, when well executed, occasions a surprise that cannot be conceived by a mere description.

The sibyls, fig. 5.

7. Make a wooden pedestal AB, about ten inches long, eight wide, and one deep: and at one end erect a box C, about ten inches high, eight broad, and two and a half deep.

The top of the pedestal must slide in a groove, on which inscribe a dial M, of six inches diameter, and which is to be divided into nineteen equal parts, in twelve of which write the names of the months, and mark the respective signs of the zodiac; and in the seven other divisions, which must be next the end B, write the days of the week, and mark the figures of the planets. Next the inner circle NO, make an opening into the box, of about one-tenth of an inch. On the centre of the dial place an index that turns freely on its centre.

Within the pedestal place a pulley P, about four inches diameter, which is to turn on an axis that is directly under the centre of the dial; and on the upper part of that axis fix a bent index R, which comes out at the opening made by the inner circle (H), and passes over those seven divisions only on which are wrote the days of the week.

Within the box C, let there be two rollers S and T, as in the figure: let that of S contain a spring; and at the end of T let there be a pulley V, of three quarters of an inch diameter, round which goes a string or thread that passes under the small pulley X, and is fastened to that of P: so that when the last pulley makes about one-third of a turn, that of V may make three or four turns.

There must also be a scroll of paper, about two feet long, and each end of which must be pasted to one of the rollers. In the front of the box, between the two rollers, make an aperture D, about four inches long and one inch and a half wide: to this opening let there be a little flap or slider, by which it may be closed at pleasure.

Experiments with Sympathetic Inks.

The apparatus being thus disposed, place the index R successively against each of the divisions marked with one of the planets; and as the paper is gradually wound up the roller, mark, against that part which is at the aperture D, the name of one of the following sibyls:

The Hellespontian
Cumean
Artemisian
Phrygian
Albunean
Persian
Libyan
} sibyl.

On each of the seven cards write a different question, and draw one of the seven planets. Next take a memorandum book that contains seven leaves, and on each of them write the name of one of the foregoing sibyls; in each of the leaves place several pieces of paper; and on each of them write, with the sympathetic ink that does not appear till the paper is heated, different answers to the same question.

Then give a person the seven cards on which the questions are wrote, and tell him to choose one of them privately, and conceal the rest, so that it cannot possibly be known which of them he has chosen.

Next, tell him to place the index that points to the month against that in which he was born (1), and to place the index of the planets against that which is on the card he has chosen, and which is to preside over the answer: you tell him to do this privately, that no one may see him, and after that to cover the dial with his handkerchief. Then let him open the door that is before the aperture in the box, and tell you the name of the sibyl there visible.

You then open the memorandum book, and taking out the papers that are in the leaf where the name of the sibyl just mentioned is wrote, you desire him to choose any one of them he thinks proper. The talisman used in the last experiment being properly heated, is then to be introduced, when you direct the person to put the blank paper into it; and taking it out a few moments after, he will find the answer to his question.

To make this operation appear the more extraordinary, it will be proper to have a small press or cupboard, at the back of which there is a door that opens into an adjoining room, by which means an assistant having prepared the talisman, may place it in the cupboard the moment before it is wanted. This contrivance will be useful on many other ocansions.

The magic urn.

8. Provide an urn of wood or metal about six inches high, and two and a half diameter in the widest part, and of such figure in other respects as you think proper (see fig. 9.). Let there be a cylinder of copper C, (fig. 10.) of about one-eighth of an inch diameter,

(H) If the axis be made to pass through the top of the pedestal, this opening will not be necessary.

(1) These months and the index are of no other use than to give the experiment an air of greater mystery.

Experiments with Sympathetic Inks.

meter, which is to fill a hole AB made in the urn. The top of this cylinder is to be in the top of the urn, so that it may be easily taken out. To this urn there must be a cover D, which fits it exactly.

On a small square piece of paper draw the figure of a flower or leaf, with that sort of sympathetic ink whose colour most resembles it. You then present several sorts of flowers or leaves to a person, and desire him to choose any one of them. Then put that flower on a chafingdish of hot coals; and taking the paper on which it is secretly drawn, you give it to the person to examine, and then put it in the urn, having previously heated the cylinder (K). Then taking some of the ashes of the burnt flower, you strew them over the paper, after which you take it out and show the company the figure of that flower. While the flower is burning, you may sprinkle some powder over it, suppose that of saltpetre; and by that, mixed with the ashes of the flower, the company may imagine the effect is produced.

The press or cupboard mentioned in the preceding experiment, will be here very convenient for heating the cylinder and placing it in the urn. A similar deception may be performed by putting the paper in a copper vessel, that may be placed on an iron plate over the chafingdish in which the flower is burnt. But this method has not so mysterious an appearance as the other, and in some persons may cause a suspicion that the effect is produced by heat.

The convertible cards.

9. To perform this experiment, you must observe, that there are several letters which may be changed into others, without any appearance of the alteration; as, the *a* into *d*, the *c* into *a*, *e*, *d*, *g*, *o*, or *q*, the *i* into *b*, *d*, or *l*, the *l* into *t*, the o into *a*, *d*, *g*, or *q*, the *v* into *y*, &c.

Take a parcel of cards, suppose 20, and on one of them write, with the ink of the fourth class, the word *law* (L), and on the other, with the same ink, the words *old woman;* then holding them to the fire, they will both become visible. Now you will observe, that by altering the *a* in the word *law* into *d*, and adding *o* before the *l*, and *oman* after the *w*, it becomes *old woman*. Therefore, you make those alterations with the invisible ink, and let it remain so. On the rest of the cards you write any words you think fit.

Present the cards in such a manner to two persons, that one of them shall draw the word *law*, and the other the word *old woman*. You then tell the person who drew the word *law*, that it shall disappear, and the words on the other card shall be wrote in its place; and that you may not change the cards, desire each of the parties to write his name on the cards. Then putting the cards together, and holding them before the fire, as if to dry the names just wrote, the word *law* will presently change into *old woman*.

This experiment may be varied by fixing on a word that may be changed into three other words, and making four persons draw the cards on which those words are wrote; and it may be further diversified by choosing three such words, as that the first can be changed into the second, and the second into the third. You then tell him who drew the first word, that it shall be changed into that drawn by the second person; and him you tell, that his word shall be changed into that of the third person.

Experiments with Sympathetic Inks.

The oracular letters.

10. Write on several slips of paper different questions, and such as may be answered by the name of some person; for example, Who is the merriest man in the company? Answer, Mr * * *. To whom will Miss * * * be married? Answer, To Mr * * *. These questions are to be wrote in the sympathetic ink of this class, and exposed to the fire, and the answers wrote in the same ink, and left invisible. The papers are to be folded in form of letters, and in such manner that the part where the name is wrote shall be directly under the seal, and the heat of the wax will make it visible. Then give the letter to the person who requires the answer, and he will find it plainly wrote.

A deception similar to this may be made with a number of blank cards, on each of which an ace of spades is drawn with the invisible ink; then let a person choose any one of them, and enclose it in a letter-case, prepared in such a manner that the figure of the ace shall be directly under the seal, and on opening the letter it will be immediately visible.

Deceptions with Class V.

The incomprehensible writing.

11. Have a box that is divided into three parts after the same manner as the talisman in the 21st experiment, except that, instead of being triangular, it must be of a long square, (see fig. 14.). Divide its top B into two equal parts D and E, as in fig. 13. and to the part D adjust a plate of copper L about one quarter of an inch thick, and under both the plate L, and the opening E place a cloth. The upper part C must have a button by which it may be fixed on the cover B, so as to appear of one piece with it.

At the bottom of the box place a piece of cloth, or other stuff, on which you may stamp certain mysterious characters, and observe that the bottom of the cover must rest upon the cloth.

Then provide a slip of paper GH (fig. 12.) of the same size with the bottom of the box; and at each end of it write, with the green sympathetic ink, the name of a different card, and make some private mark by which you can tell at which end each name is wrote (M).

Take a parcel of cards, and offer those two of them whose names are wrote on the paper to the two persons, that they may draw them. You tell the parties to keep their cards to themselves, and you propose to make the names of those cards appear upon a slip of paper, which you put into the box. You then ask which name of the two cards shall appear first. The copperplate being previously heated and placed in the cover,

(K) There are some sorts of sympathetic inks that require much more heat than others.

(L) These letters should not be joined.

(M) That there may be no suspicion of the paper being prepared, you may cut it from a whole sheet, before the company, having previously wrote the names.

Experiments with Sympathetic Inks.

cover, you put it over that end of the paper on which is the name required, and it will presently appear. Then taking the paper out, and showing the name wrote, you put it in again, turning the other end to the side of the box where the plate is, and it will in like manner become visible.

The first name may be made to disappear at the same time that the second appears, if the cloth at the end opposite to that where the plate is made be damp.

Winter changed into spring.

12. Take a print that resembles winter, and trace over the proper parts of the trees, plants, and ground, with the green sympathetic ink; observing to make some parts deeper than others, according to their distance. When those parts are dry, paint the other objects with their natural colours. Then put the print in a frame with a glass, and cover the back of it with a paper that is pasted over its border only.

When the print is exposed to the heat of a moderate fire, or to the warm rays of the sun, all the grass and foliage will turn to a pleasing green; and if a yellow tint be given to some parts of the print, before the sympathetic ink be drawn over, this green will be of different shades; and the scene that a minute before represented winter, will now be changed to spring. When this print is placed in the cold, winter will again appear, and will again be driven away by the warm rays of the sun. This alternate change of seasons may be repeated as often as you please; remembering, however, as was before observed, not to make the print at any time too hot, for then a faded autumn will for ever remain.

Deceptions with Class VII.

The revivified bouquets.

13. Provide a number of artificial flowers, such as roses, jonquils, pinks, or any other you find convenient. These flowers must be made of white thread or silk, and their leaves of parchment. Dip the roses in the red sympathetic ink, the jonquils in the yellow, the pinks in the violet, and their leaves in a solution of salt or tartar. When they are all dry, form them into small bouquets, which will all appear white, and may be used in this experiment, either the day they are dipped, or several days after.

You take one of these bouquets, and after showing the company that every part of it is white, you dip it in an infusion of any of the blue flowers mentioned under the article *Colour-Making*, N° 13. and, drawing it presently out, all the flowers and leaves will appear in their natural colours (N).

The transcolorated writing.

14. Write on a paper, with the violet liquor, as many letters or words as you please; and ask any person whether he will have that writing turn to yellow, green, or red.

Have a sponge with three sides that you can readily distinguish, and dip each of its sides in one of the three sympathetic inks. Draw the side of the sponge that corresponds to the colour the person has chosen, over the writing once only; and it will directly change to the colour required (O).

Miscellaneous Performances.

Sect. IV. *Miscellaneous Performances.*

To tell odds or evens.

15. *A person having an even number of counters in one hand, and an odd number in the other, to tell in which hand the odd or even number is.*—Let the person multiply the number in his right hand by an odd number, and the number in his left hand by an even number, and tell you if the sum of the products added together be odd or even. If it be even, the even number is in the right hand; but if it be odd, the even number is in the left hand.

Example.

1. Number in the right hand	18	In the left	7
Multipliers	3		2
	54		14
	14		
Their sum	68		
2. Number in the right hand	7	In the left	18
Multipliers	3		2
	21		36
	36		
Their sum	57		

To tell at what hour any person intends to rise.

16. *To tell, by the dial of a watch, at what hour any person intends to rise.*—Let the person set the hand of the dial to any hour he pleases, and tell you what hour that is: and to the number of that hour you add, in your mind, 12. Then tell him to count privately the number of that amount upon the dial, beginning with the next hour to that on which he proposes to rise, and counting backwards, first reckoning the number of the hour at which he has placed the hand. An example will make this plain.

Suppose the hour at which he intends to rise be 8, and that he has placed the hand at 5. You add 12 to 5, and tell him to count 17 on the dial, first reckoning 5, the hour at which the index stands, and counting backwards from the hour at which he intends to rise; and the number 17 will necessarily end at 8, which shows that to be the hour he chose.

That the hour at which the counting ends must be that on which he proposed to rise, will be evident on a little reflection; for if he had begun at that hour, and counted 12, he would necessarily have come to it again; and calling the number 17, by adding 5 to it, only serves

(N) The liquor should be put in a sort of jar with a narrow neck, that it may not be seen by the company: and you should draw the flowers gently out that the liquor may drop if thin, and they may have time to acquire their colours.

(O) The sponge should be well cleaned immediatcly after the experiment.

Miscellaneous Performances.

serves to disguise the matter, but can make no sort of difference in the counting.

The magical century.

17. If the number 11 be multiplied by any one of the nine digits, the two figures of the products will always be similar. As follows:

11	11	11	11	11	11	11	11	11
1	2	3	4	5	6	7	8	9
11	22	33	44	55	66	77	88	99

Place a parcel of counters on a table, and propose to any one to add, alternately, a certain number of those counters, till they amount to 100, but never to add more than 10 at a time. You tell him, moreover, that, if you stake first, he shall never make the even century, but you will. In order to which, you must first stake 1, and remembering the order of the above series, 11, 22, 33, &c. you constantly add to what he stakes, as many as will make one more than the numbers of that series, that is, as will make 12, 23, 34, &c. till you come to 89, after which the other party cannot make the century himself, nor prevent you from making it.

If the other party has no knowledge of numbers, you may stake any other number first, under 10, provided you take care to secure some one of the last terms, as 56, 67, 78, &c.

This deception may be performed with other numbers; and in order to succeed, you must divide the number to be attained by a number that has one digit more than what you can stake each time, and the remainder will be the number you must first stake. Observe, that, to be sure of success, there must be always a remainder. Suppose, for example, the number to be attained is 52, making use of a pack of cards instead of counters, and that you are never to add more than 6: then divide 52 by the next number above 6, that is, by 7, and the remainder, which is 3, will be the number you must stake first; and whatever the other stakes, you must add as much to it as will make it equal to the number by which you divided, that is 7. Therefore, if his first stake be 1, you must stake 6, &c. so that your second stake will make the heap 10, your third stake will make it 17, and so on, till you come to 45, when, as he cannot stake more than 6, you must make the number 52.

In this, as in the former case, if the other person has no knowledge of numbers, you may stake any number first under 7; or you may let him stake first, only taking care to secure either of the numbers 10, 17, 24, 31, &c. after which he cannot make 52, if you constantly add as many to his stake as will make it 7.

To tell what number a person privately fixes on.

18. *A person privately fixing on any number, to tell him that number.*——After the person has fixed on a number, bid him double it and add 4 to that sum, then multiply the whole by 5; to the product let him add 12, and multiply the amount by 10. From the sum of the whole let him deduct 320, and tell you the remainder; from which, if you cut off the two last figures, the number that remains will be that fixed on.

Example.

Let the number chosen be - -	7
Which doubled is - - -	14
And 4 added to it, makes - -	18
Which multiplied by 5, gives - -	90
To which 12 being added, it is - -	102
That multiplied by 10, makes - -	1020
From which deducting 320, the remainder is	700
And by striking off the two cyphers, it becomes the original number - - - -	7

Miscellaneous Performances.

To tell the number of points thrown up by 3 dice, without seeing them.

19. *Three dice being thrown on a table, to tell the number of each of them, and the order in which they stand.*—Let the person who has thrown the dice double the number of that next his left hand, and add 5 to that sum; then multiply the amount by 5, and to the product add the number of the middle die; then let the whole be multiplied by 10, and to that product add the number of the third die. From the total let there be subtracted 250, and the figures of the number that remains will answer to the points of the three dice as they stand on the table.

Example. Suppose the points of the three dice thrown on the table to be 4, 6, and 2.

Then the double of the first die will be -	8
To which add - - - -	5
	13
	5
That sum multiplied by 5 will be - -	65
To which add the number of the middle die	6
	71
And multiply the sum by - -	10
	710
To that product add the number of the third die	2
From the total - - -	712
Subtract - - -	250
And the three remaining figures - - will answer to the numbers on the dice, and show the order in which they stand.	462

To tell on what finger, joint, &c. a ring has been privately put.

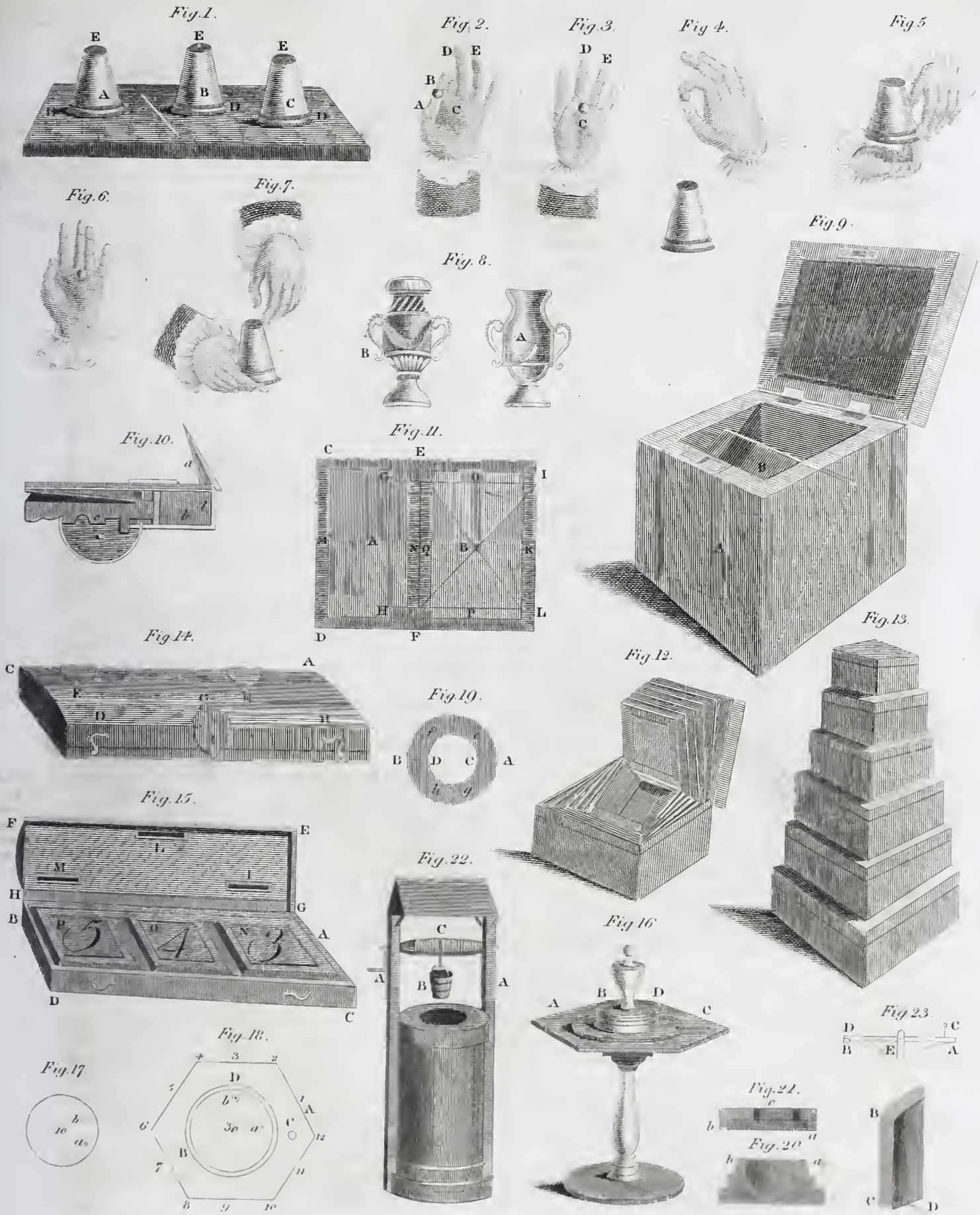
20. *Some person in company having put a ring privately on one of his fingers; to name the person, the hand, the finger, and the joint, on which it is placed.*—Let a third person double the number of the order in which he stands who has the ring, and add 5 to that number; then multiply that sum by 5, and to the product add 10. Let him next add 1 to the last number if the ring be on the right hand, and 2 if on the left, and multiply the whole by 10: to this product he must add the number of the finger (counting the thumb as the first finger), and multiply the whole again by 10. Let him then add the number of the joint; and, lastly, to the whole join 35.

He is then to tell you the amount of the whole, from which you are to subtract 3535, and the remainder will consist of four figures, the first of which will express the rank in which the person stands, the second the hand (the number 1 signifying the right hand, and 2 the left), the third number the finger, and the fourth the joint.

Example. Suppose the person who stands the third in order has put the ring upon the second joint of the thumb of his left hand; then

The

LEGERDEMAIN. *PLATE CCXC.*



E. Mitchell sculp.

Fig. 1.

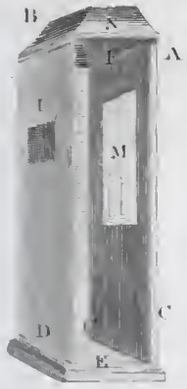


Fig. 2.

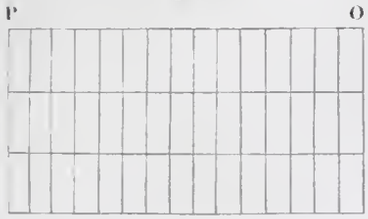


Fig. 3.

Fig. 4.

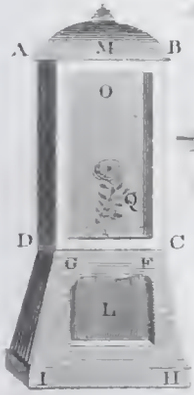


Fig. 5.

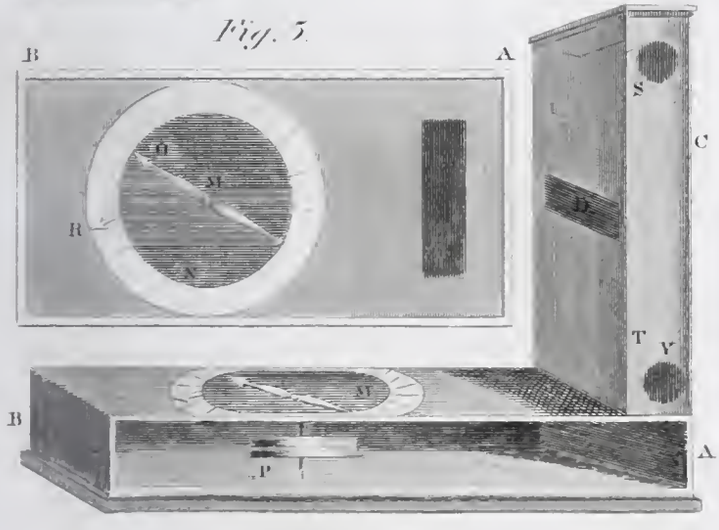


Fig. 6.

Fig. 7.

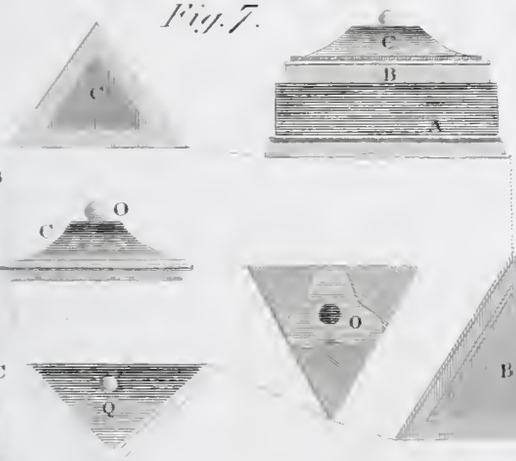


Fig. 8.

Fig. 9.

Fig. 10.

Fig. 11.

Fig. 12.

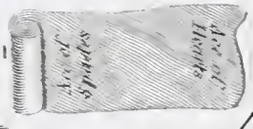


Fig. 13.

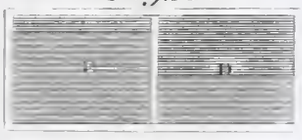


Fig. 14.

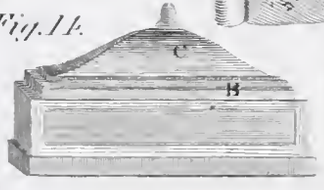


Fig. 15.

Fig. 16.

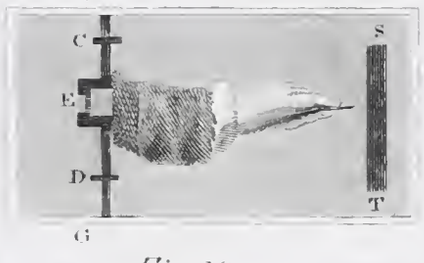


Fig. 17.

Fig. 18.

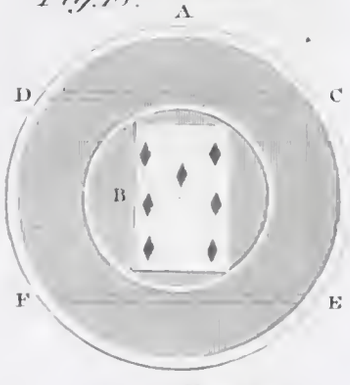


Fig. 19.

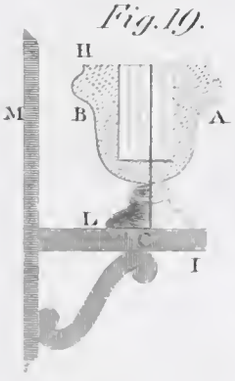


Fig. 20.

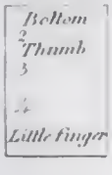


Fig. 21.

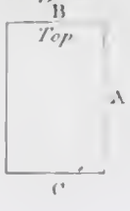


Fig. 22.

Fig. 23.

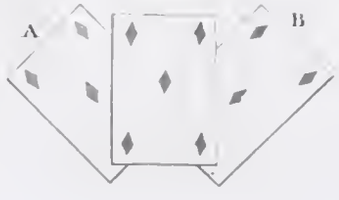
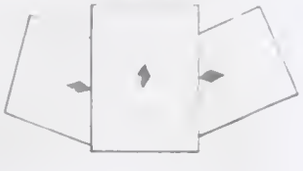


Fig. 24.



Miscellaneous Performances.

The double of the rank of the third person is	6
To which add - - -	5
	11
Multiply the sum by - - -	5
	55
To which add - - -	10
And the number of the left hand -	2
	67
Which being multiplied by -	10
	670
To which add the number of the thumb -	1
	671
And multiply again by - -	10
	6710
Then add the number of the joint -	2
And lastly the number - -	35
	6747
From which deducting - -	3535
The remainder is - -	3212

Of which, as we have said, the 3 denotes the third person, the 2 the left hand, the 1 the thumb, and the last 2 the second joint.

The burnt writing restored.

21. Cover the outside of a small memorandum book with black paper, and in one of its inside covers make a flap to open secretly, and observe there must be nothing over the flap but the black paper that covers the book.

Mix soot with black or brown soap, with which rub the side of the black paper next the flap; then wipe it quite clean, so that a white paper pressed against it will not receive any mark.

Provide a black lead pencil that will not mark without pressing hard on the paper. Have likewise a small box, about the size of the memorandum book, and that opens on both sides, but on one of them by a private method. Give a person the pencil, and a slip of thin paper, on which he is to write what he thinks proper: you present him the memorandum book at the same time, that he may not write on the bare board. You tell him to keep what he writes to himself, and direct him to burn it on an iron plate laid on a chafingdish of coals, and give you the ashes. You then go into another room to fetch your magic box above described, and take with you the memorandum book.

Having previously placed a paper under the flap in the cover of the book, when he presses hard with the pencil, to write on the paper, every stroke, by means of the stuff rubbed on the black paper, will appear on that under the flap. You therefore take it out, and put it into one side of the box.

You then return to the other room, and taking a slip of black paper, you put it into the other side of the box, strewing the ashes of the burnt paper over it. Then shaking the box for a few moments, and at the same time turning it dexterously over, you open the other side, and show the person the paper you first put in, the writing on which he will readily acknowledge to be his.

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The transposable process.

22. Take two guineas and two shillings, and grind part of them away, on one side only, so that they may be but of half the common thickness; and observe that they must be quite thin at the edge: then rivet a guinea and a shilling together. Lay one of these double pieces with the shilling upwards, on the palm of your hand, at the bottom of your three first fingers; and lay the other piece, with the guinea upwards, in like manner, in the other hand. Let the company take notice in which hand is the guinea, and in which the shilling. Then as you shut your hands, you naturally turn the pieces over; and when you open them again, the shilling and the guinea will appear to have changed their places.

The penetrative guinea.

23. Provide a round tin box, of the size of a large snuff box; and in this place eight other boxes, which will go easily into each other, and let the least of them be of a size to hold a guinea. Each of these boxes should shut with a hinge: and to the least of them there must be a small lock, that is fastened with a spring, but cannot be opened without a key: and observe that all these boxes must shut so freely, that they may be all closed at once. Place these boxes in each other, with their tops open, (see fig. 12.) in the drawer of the table on which you make your experiments; or, if you please, in your pocket, in such a manner that they cannot be displaced.

Then ask a person to lend you a new guinea, and desire him to mark it, that it may not be changed. You take this piece in one hand, and in the other you have another of the same appearance; and putting your hand in the drawer you slip the piece that is marked into the least box, and, shutting them all at once, take them out. Then showing the piece you have in your hand, and which the company suppose to be the same that was marked, you pretend to make it pass through the box, and dexterously convey it away.

You then present the box, for the spectators do not yet know there are more than one, to any person in company; who, when he opens it, finds another, and another, till he comes to the last, but that he cannot open without the key (see fig. 13.) which you then give him, and retiring to a distant part of the room, you tell him to take out the guinea himself, and see if it be that he marked.

This deception may be made more surprising, by putting the key into the snuff box of one of the company; which you may do by asking him for a pinch of his snuff, and at the same time conceal the key, which must be very small, among the snuff: and when the person who is to open the box asks for the key, you tell him that one of the company has it in his snuff box. This part of the deception may likewise be performed by means of a confederate.

The three magic pictures.

Plate CCXC. fig. 14. 15.

24. ABCD, fig. 15. represents a small wooden box seven or eight inches long, two and a half broad, and half an inch deep; the bottom of which, by means of two cross pieces, is divided into three equal parts. EFGH represents the lid, which is fastened to the bottom by a hinge, and has in front a small plate shaped like a lock, and two small eyes for hooks which serve to fasten it when it is shut. ILM are three small flexible springs,

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springs, flat, and about ¼ inch long. NOP are three wooden tablets of the same size, upon which are marked the figures 3, 4, and 5. The tablets are of different thicknesses, and the difference is so small as not to be perceived by the eye. The outside of the box is covered with shagreen or morocco leather, and on the inside with silk taffety; these coverings being indispensably necessary to hide the three small springs above mentioned. Fig. 14. shows the two hinges E and F bent close to the top of the lid ABCD; the piece of brass G, similar to a lock, being also curved to the lid. A small brass stud is rivetted upon the end of each of these springs inserted into the lid, and passes through the curved part of each of the hinges and the lock; so that on the outside they appear as the heads of small pins which fasten them upon the lid. These small studs will be elevated more or less according to the thicknesses of the tablets, that they may be shut up in each of the partitions in which they may be found placed; so that the tablet N elevates them more than the tablet O, and the latter less than P; though these elevations are but barely sensible to the sight or touch, and that by a person accustomed to look at or handle them. Thus it may be easily known in whatever order the tablets are placed, however carefully shut; and consequently the number named as enclosed.

Give now the box to any indifferent person, leave him at liberty to form with the tablets any number he pleases, desiring him to return the box well shut up; then taking the box, and determining by the touch or rather by the eye, what order the tablets are in, it will be very surprising to hear you declare the number without seeing it.

N. B. It will still be equally possible to discover the number, though the tablets should be returned with the bottom upwards, or even though one should be withdrawn in order to defeat your design; particularly if care had been taken to make the studs remain even with the plates when a number is omitted.

The numerical table.

25. *To discover any particular counter which has been secretly placed within a box that turns upon it.*—This table, which is made of wood, is represented by A, fig. 16. It is of a hexagonal shape, and about three or four inches diameter. For the sake of neatness in appearance, a proportionably sized pillar with a foot is fixed to it. Round a centre there turns a small round box B of about ¾ inch diameter in the inside, the lid of which takes off at B. At the bottom of this box, near the circumference in the inside, is fixed a brass pin to fit a hole made in a flat ivory counter shown at *b*, fig. 17. The pin and counter are represented in fig. 18. which is a flat view of fig. 19. with the lid of the box B taken off. Opposite to the pin *b*, in the same figure, D represents a fine dot designed as a secret mark on the outside of the box, which serves always as a guide to the number of the counter privately placed in the inside of the box, as is afterwards particularly explained. Upon one of the corners of the table is an ivory mark C, fig. 16. and 18. which serves to place the spot *a* upon the counters in its proper position. See fig. 17. There are 12 counters fitted to the box B, marked 10, 20, &c. as far as 120, on the middle of each. On each of these counters is the hole *b*, fig. 17. and 18. which goes over the pin in the bottom of the box; and on one side of this hole a red or black spot is placed in the following manner. When N° 10 it put into the box, the spot must be so far to the left hand of the hole, that when it is brought to the mark C, fig. 18. the hole *b* will be opposite to the side marked 1. When N° 20 is put in, the spot being brought to the mark C will carry the hole to the corner marked 2. When N° 30 is put in, and the spot brought opposite to C, the hole will be brought against the side marked 3, as is shown in the figure, and so on for the rest. Therefore, as opposite to the brass pin, or hole on the counter on the outside of the box B, there is a secret mark D already mentioned, this must serve as an index to the number contained in the box, according as it is opposite to a side or corner of the table.

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Give now the table with the box and the 12 counters to any person, and desire him to put one of the counters secretly into the box, keeping the rest to himself; and after having placed the hole over the pin in the box, to place particularly, by turning the box round, the spot *a* against the mark C on the table. Let him then cover the box, give you the table, and keep the counters himself. Observe then privately what side or corner the secret outside marked D stands against, reckon the tens accordingly, and tell him the number.

The magic well.

26. *To draw out of the well with a bucket any one of four liquors which have been previously mixed and put into it.*—Provide two tin cylinders of seven or eight inches height; the diameter of the largest, represented by AB, fig. 19. to be four inches, and that of the least, CD, two inches. Place the small one within the larger, and connect them together by soldering to them four tin partitions, making the equal spaces *e*, *f*, *g*, *h*. Turn a piece of wood three inches thick, hollow withinside, and lined with tin, of which a section is given, fig. 20. Into this the exterior cylinder should be closely fitted at *a* and *b*. Another circle of wood (of which a section is given fig. 21.), hollowed at *a*, *b*, and *c*, is also to be procured, and which may cover exactly the space between the two cylinders; and, lastly, let the whole be constructed in such a manner, that when these three separate pieces are placed together, they may represent a well, as in fig. 22. The two brass or wooden pillars AA, with the axis and handle C, serve to let down and draw up a small glass bucket B, an inch and a half in diameter. Make also four tin reservoirs of the same height with the cylinder, and so shaped as to fill the four spaces *e*, *f*, *g*, *h*, (fig. 19.) which must be well closed at their extremities B and C. On the top of each make a small hole about the tenth part of an inch diameter, and solder at the base C a small tube D, the end of which should be bent towards the inside of the well when the reservoir is placed in it. Solder on the top of each reservoir a small spring lever and prop ABDE, fig. 23. The spring will serve always to press the end of the lever D down upon the hole at the top of the reservoir B; and in order to cover it more perfectly, a small piece of leather is to be glued on to the end of the lever D. Lastly, A small peg or stud C is placed at the end of each of the levers, and which must be close to the under part of the wooden circle which covers the reservoirs. To conceal these studs, and at the same time to be able to press upon them with the fingers, circular apertures, as shown in fig. 21. must be made in the piece of wood, the top

covered

Miscellaneous Performances.

covered with a piece of vellum, and the whole neatly painted with oil colour.

If now you plunge one of these reservoirs perpendicularly into any liquor, in pressing on the stud, so as to uncover the hole at the top, it will be filled with the liquor in proportion to the depth to which it is immerged; and as long as the lever continues to press upon the hole by means of the spring, the liquor cannot run out for want of air, though it will do so the moment the stud is pressed upon and the air admitted. If the reservoir is properly placed, then the liquor will flow out of it into the glass bucket when let down to a proper depth.

Fill now the four reservoirs with the four different liquors; putting them in their places, and covering them with the circular top. Take a quantity of the same liquor, mix them well together, and pour the whole into the well; after which you may draw out any one which the company desires, by letting down the bucket, and pressing secretly upon the stud belonging to the reservoir which contains it, and which will thus discharge the liquor it contains.

The resuscitated flower. Plate CCXCI.

27. Provide a small tin mortar, that is double, as A (fig. 8.), whose bottom B turns round on an axis, by means of a spring which communicates with the piece C. There must be a hollow space under the false bottom. To the under side of the bottom fasten, by a thread of fine silk, a flower, with its stalk and leaves.

Then take a flower that exactly resembles the other, and plucking it from the stalk, and all the leaves from each other, put them into the mortar, and pound them with a small pestle; after which you show the mortar to the company, that they may see the parts are all bruised.

Then taking the mortar up in your hands, you hold it over the flame of a lamp or candle, by whose warmth the flower is supposed to be restored; and at the same time pressing the piece at C, the bottom will turn round, the bruised parts descend into the space under the bottom, and the whole flower will be at top: you then put your hand into the mortar, and easily breaking the silk thread, which may be very short as well as fine, you take the flower out and present it to the company.

There is an experiment similar to this, in which a live bird is concealed at the bottom of the mortar, and one that is dead is pounded in it: after which, by the motion of the bottom, the live bird is set at liberty. But surely the pounding a bird in a mortar, though it be dead, must produce, in persons of any delicacy, more disgust than entertainment.

The luminous oracle. Plate CCXCI.

28. Procure a tin box ABCD (fig. 1.) about eight inches high, four wide, and two deep, and let it be fixed on the wooden stand E. On two of the insides let there be a groove FG; and in the front an opening I, three inches wide and one high.

At the back of the box let there be a little tin door, that opens outward, by which two wax candles M may be put in. Let the top of the box have a cover of the same metal, in which there are several holes, and which may be taken off at pleasure.

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Provide a double glass OP (fig. 2.) constructed in the same manner as that in the last experiment. On one of its sides you are to paste a black paper, the length of which is to be divided into three parts, and the breadth into fifteen; in every two of these fifteen divisions you cut out letters, which will make in the whole three answers to three questions that may be proposed. On the other side of the glass paste a very thin paper, and to the top fasten a small cord, by which they may be made to rise or descend in the groove FG.

Then take a slip of pasteboard RS (fig. 3.) one inch and a half wide and three inches long, which is to be divided into fifteen equal parts similar to those of the paper OP, and cut out spaces, as in the figure, so that this paper sliding horizontally before OP, will either cover or conceal the papers cut in that.

This pasteboard is to slide between two brass wires, and is to be fastened to one side of the box, by a string that communicates with a small brass spring; and to the other side, by a string fastened to the box by a small piece of wax, so situated that the string may be easily set at liberty by the heat of the candles placed in the box.

Take a parcel of cards, and write on them different questions, three of which are to correspond with the answers on the glass. Shuffle these cards, and let a person draw any one of the three questions. Then by raising the glass, you bring the answer against the hole in the front of the box. You next place the candles in the box, the heat of which will melt the wax that holds the paper RS, which being then drawn by the spring, the answer will be visible; and in proportion as the composition between the glasses becomes diluted by the increase of the heat, the letters will become more strongly illuminated.

The letters cut in the paper may be made to answer several different questions, as has been explained in other experiments; and the whole parcel of cards may consist of questions that may be answered by one or other of the three divisions of the paper.

A flower produced from its ashes.

29. Make a thin box ABCD (fig. 4.), with a cover M, that takes off. Let this box be supported by the pedestal FGHI, of the same metal, and on which there is a little door L. In the front of this box is to be a glass O.

In a groove, at a small distance from O, place a double glass of the same sort with that in the last experiment. Between the front and back glasses place a small upright tin tube supported by the cross piece R. Let there be also a small chafingdish placed in the pedestal FGHI. The box is to be open behind. You privately place a flower (Q) in the tin tube R; and presenting one that resembles it to any one (R), desire him to burn it on the coals in the chafingdish.

You then strew some powder over the coals, which may be supposed to aid the ashes in producing the flower: and then put the chafingdish on the pedestal

(Q) This flower must not be placed so near as to make it in the least degree visible.

(R) You may present several flowers, and let the person choose any one of them. In this case, while he is burning

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under the box. As the heat by degrees melts the composition between the glasses, the flower will gradually appear; but when the chafingdish is taken away, and the power of the ashes is supposed to be removed, the flower soon disappears.

For entertaining experiments, illusions, &c. of a philosophical nature, see the articles ACOUSTICS, CATOPTRICS, CHROMATICS, DIOPTRICS, PYROTECHNICS, SCIENCE, *Amusements of*.

Miscellaneous Performances.

L E G

Leger Line, Leghorn.

LEGER LINE, in *Music*, one added to the staff of five lines, when the ascending or descending notes run very high or low; there are sometimes many of these lines both above and below the staff, to the number of four or five.

LEGHORN, anciently called *Liburnus Portus*, but by the modern Italians *Livorno*, a handsome town of Italy, in the duchy of Tuscany, and a free port, about 30 miles south-west from Florence, in the territory of Pisa. The only defect of the harbour is its being too shallow for large ships. Cosmo I. had this town in exchange for Sarzana, from the Genoese; and it is the only sea port in the duchy. It was then but a mean unhealthy place; but is now very handsome, and well built, with broad, straight, parallel streets. It is also well fortified; but wants good water, which must be brought from Pisa, 14 miles distant. It is about two miles in circuit, and the general form of it is square. Part of it has the convenience of canals; one of which is five miles in length, and, joining the Arno, merchandise and passengers are thus conveyed to Pisa. The port, consisting of two havens, one for the duke's galleys, and the other for merchant ships, is surrounded with a double mole, above a mile and a half in length, and defended, together with the town, by a good citadel, and 12 forts. Roman Catholics, Jews, Grecks, Armenians, Mahometans, and even the English factory, are indulged in the public exercise of their religion; but other Protestants must be satisfied with the private. The trade carried on here is very great, and most of it passes through the hands of the Jews. Though only two piasters, or scudi, are paid for every bale, great or small, imported or exported, yet the duties on all provisions and commodities brought from the continent to the town are very heavy. The number of the inhabitants in 1819 was about 60,000; and one-third of these are Jews, who live in a particular quarter, but without any mark of distinction, and have a fine synagogue. They have engrossed the coral manufactory, have a considerable trade, and possess the chief riches of the place. The garrison consists of 2000 men. The walks on the ramparts are very agreeable. There is good anchorage in the road; but ships riding there are much exposed to the weather and the Barbary corsairs. The number of English families in Leghorn, some years ago, amounted to about 36; and they were formerly much favoured by the government. The power of the inquisition is limited to ecclesiastical matters and Roman Catholics. There are a great many Turkish slaves here, brought in by the duke's galleys, who are often sent out on a cruise against the corsairs of Barbary. The lighthouse stands on a rock in the sea; near which is the lazaretto, where quarantine is performed. Another source, from which the duke draws a great revenue, is the monopoly of brandy, tobacco, and salt; but that, with the heavy duties, makes provisions dear. The Turks, who are not slaves, live in a particular quarter, near that of the Jews. The common prostitutes also have a particular place assigned them, out of which they must not be seen, without leave from the commissary. The number of the rowers in the galleys, whether Turkish slaves, criminals, or volunteers, is about 2000. In the area before the darsena or inner harbour, is a fine statue of Duke Ferdinand, with four Turkish slaves, in bronze, chained to the pedestal. The ducal palace is one of the finest structures in the town, and the ordinary residence of the governor. Leghorn is the see of a bishop, and has a noble cathedral; but the other churches are not remarkable. Leghorn did not escape those changes in which the French revolutionary war involved the towns and states of Italy. E. Long. 10. 6. N. Lat. 43. 32.

L E G

Leghorn || Legion.

LEGIO VII. GEMINA, in *Ancient Geography*, a town or station of that legion in Asturias. Now *Leon*, capital of the province of that name in Spain. W. Long. 6. 5. N. Lat. 43.—Another LEGIO, a town of Galilee; from which Jerome determines the distances of the places in Galilee; not a bare encampment, though the name might originally be owing to that circumstance. It lay 15 miles to the west of Nazareth, between Mount Tabor and the Mediterranean. Now thought to be *Legune*.

LEGION, in Roman antiquity, a body of foot which consisted of different numbers at different periods of time. The word comes from the Latin *legere*, to choose; because, when the legions were raised, they made choice of such of their youth as were most proper to bear arms.

In the time of Romulus the legion consisted of 3000 foot and 300 horse; though, after the reception of the Sabines, it was augmented to 4000. In the war with Hannibal, it was raised to 5000, after this it sunk to 4000 or 4500; this was the number in the time of Polybius. The number of legions kept in pay together, differed according to times and occasions. During the consular

burning the flower, you fetch the box from another apartment, and at the same time put in a corresponding flower, which will make the experiment still more surprising.

Legion, Legislator.

consular state four legions were fitted up every year, and divided between the two consuls; yet we meet with the number of 16 or 18, as the situation of affairs required. Augustus maintained a standing army of 23 or 25 legions; but this number in after times is seldom found. The different legions borrowed their names from the order in which they were raised; hence we read of *legio prima*, *secunda*, *tertia*: but as there might be many *primæ*, *secundæ*, *tertiæ*, &c. they were surnamed from the emperors, as *Augusta*, *Claudiana*, *Galbiana*, *Flavia*, *Ulpia*, *Trajana*, *Antoniana*, &c. or from the provinces which had been conquered by their means, as *Parthica*, *Scythica*, *Gallica*, *Arabica*, &c. or from the deities under whose protection the commanders had particularly placed themselves, *Minervia*, *Apollinaris*, &c. or from the regions where they were quartered, as *Cretensis*, *Cyrenaica*, *Britannica*, &c. or from particular accidents, as *adjutrix*, *martia*, *fulmi-vatrix*, *rapax*, *victrix*.

Each legion was divided into 10 cohorts, each cohort into 10 companies, and each company into two centuries. The chief commander of the legion was called *legatus*, i. e. lieutenant.

The standards borne by the legions were various; at first, the standard was a wolf, in honour of Romulus's nurse; afterwards a hog, which animal was usually sacrificed at the conclusion of a treaty, to indicate that war is undertaken with a view to peace; sometimes a minotaur, to remind the general of his duty of secrecy, of which the labyrinth was an emblem, and consequently the minotaur; a horse was also borne, also a boar; and Marius, we are told, was the first who changed all these for the eagle.

LEGISLATOR, a lawgiver, or person who establishes the polity and laws of a state. Such was Moses, among the Jews; Lycurgus, among the Lacedæmonians, &c. See *Mosaic Law*.

The first laws amongst the Athenians seem to have been those of Theseus; for what we can find earlier than this period is involved in fable. After Theseus came Draco the Archon, whose laws were said, for their severity, to have been written with blood: by his laws every offence was punished with death; so that stealing an apple, and betraying their country, were treated as equal crimes. These laws were afterwards repealed by Solon, except such as related to murder: By way of distinction, Draco's laws were called Θεσμοι, and Solon's Νομοι. The laws of Solon were in a great measure suspended during the usurpation of Pisistratus; but, after the expulsion of his family, were revived with some additions by Clisthenes. After this, the form of government was again changed, first by the four hundred, and afterwards by the thirty tyrants; but these storms being over, the ancient laws were again restored in the archonship of Euclides, and others established at the instances of Diocles, Aristophon, and last of all, of Demetrius the Phalerian. This is a short sketch of the history of the Athenian legislation, before that state submitted to the Roman yoke. But many laws were enacted by the suffrages of the people on particular exigencies; the decrees of the senate continued to have the force of laws no longer than a year. If a new law was to be proposed to the assembly, it was necessary to write it upon a white tablet, and fix it up some days before the meeting, lest their judgment should be caught by surprise. The laws were carefully revised every year; and if any of them, from a change of circumstances, were found unsuitable or prejudicial, they were repealed: This was called ηπιχειροτονια των νομων, because the suffrages were given by holding up of hands. The first laws amongst the Grecians were unwritten and composed in verse, that the common people might with more ease commit them to memory. Solon penned his laws upon wooden tablets, called Ἀξονες; and some authors with great probability assert that they were written in the manner called Βουστροφηδον, from left to right, and from right again to left, in the same manner as oxen walk the furrows in plowing, thus,

ΕΚ ΔΙΟΣ ΑΡ
·ΥΘΞΞΜΩΧ

It was against the law for any person to erase a decree; and certain persons, called Γραμματεις, were appointed to prevent any corruption; whose business it was also to transcribe the old and enter the new ones.

At Rome the people were in a great measure their own legislators; though Solon may be said, in some sense, to have been their legislator, as the decemviri, who were created for the making of laws, borrowed a great number from those of Solon. See Lex.

With us the legislative power is lodged in the king, lords, and commons assembled in parliament. See Law and Parliament.

LEGITIMATION, an act whereby illegitimate children are rendered legitimate. See Bastard.

LEGITIME, in *Scots Law*, that share of the moveable effects belonging to a husband and wife, which upon the husband's death falls to the children. See Law *Index*.

LEGUMEN, or Pod, in *Botany*; a species of seed-vessel which has two valves or external openings enclosing a number of seeds that are fastened along one suture only. In this last circumstance the seed vessel in question differs from that termed by botanists *siliqua*, in which the enclosed seeds are fastened alternately to both the sutures or joinings of the pod.

The seed-vessel of all the pea-bloom or butterfly-shaped flowers, the *diadelphia* of Linnæus, is of this pod kind. Such, for instance, is the seed-vessel of the pea, vetch, lupine, and broom.

LEGUMINOUS, an appellation given to all plants whose fruit is a legumen.

LEIBNITZ, Godfrey William de, an eminent mathematician and philosopher, was born at Leipsic in Saxony in 1646. At the age of 15 years, he applied himself to mathematics at Leipsic and Jena; and in 1663, maintained a thesis *de Principiis Individuationis*. The year following he was admitted master of arts. He read with great attention the Greek philosophers; and endeavoured to reconcile Plato with Aristotle, as he afterwards did Aristotle with Des Cartes. But the study of the law was his principal view; in which faculty he was admitted bachelor in 1665. The year following he would have taken the degree of doctor; but was refused it on pretence that he was too young, though in reality because he had raised himself several enemies by rejecting the principles of Aristotle and the schoolmen. Upon this he went to Altorf, where he maintained a thesis *de Casibus Perplexis*, with such applause,

Legislator || Leibnitz.

Leibnitz, Leibnitzian Philosophy.

plause, that he had the degree of doctor conferred on him. He might have settled to great advantage at Paris: but as it would have been necessary to have embraced the Roman Catholic religion, he refused all offers. In 1673, he went to England; where he became acquainted with Mr Oldenburg, secretary of the Royal Society, and Mr John Collins, fellow of that society. In 1676, he returned to England, and thence went into Holland, in order to proceed to Hanover, where he proposed to settle. Upon his arrival there, he applied himself to enrich the duke's library with the best books of all kinds. The duke dying in 1679, his successor Ernest Augustus, then bishop of Osnaburg, showed our author the same favour as his predecessor had done, and ordered him to write the history of the house of Brunswick. He undertook it, and travelled over Germany and Italy in order to collect materials. The elector of Brandenburgh, afterwards king of Prussia, founded an academy at Berlin by his advice; and he was appointed perpetual president, though his affairs would not permit him to reside constantly at Berlin. He projected an academy of the same kind at Dresden; and this design would have been executed, if it had not been prevented by the confusions in Poland. He was engaged likewise in a scheme for an universal language. His writings had long before made him famous over all Europe. Beside the office of privy counsellor of justice, which the elector of Hanover had given him, the emperor appointed him in 1711 aulic counsellor; and the czar made him privy counsellor of justice, with a pension of 1000 ducats. He undertook at the same time the establishment of an academy of science at Vienna; but the plague prevented the execution of it. However, the emperor, as a mark of his favour, settled a pension on him of 2000 florins, and promised him another of 4000 if he would come and reside at Vienna. He would have complied with this offer, but he was prevented by death in 1716. His memory was so strong, that in order to fix any thing in it, he had no more to do but to write it once; and he could even in his old age repeat Virgil exactly. He professed the Lutheran religion, but never went to sermon; and upon his deathbed, his coachman, who was his favourite servant, desiring him to send for a minister, he refused, saying *he had no need of one*. Mr Locke and Mr Molyneux plainly seem to think that he was not so great a man as he had the reputation of being. Foreigners ascribed to him the honour of an invention, of which, it is said, he received the first hints from Sir Isaac Newton's letters, who had discovered the method of fluxions in 1664 and 1665. But it would be tedious to give a detail of the dispute concerning the right to that invention. See FLUXIONS.

LEIBNITZIAN PHILOSOPHY, or the philosophy of Leibnitz, is a system of philosophy formed and published by its author in the last century, partly in emendation of the Cartesian, and partly in opposition to the Newtonian. The basis of Mr Leibnitz's philosophy was that of Des Cartes; for he retained the Cartesian subtile matter, with the universal plentitude and vortices; and represented the universe as a machine that should proceed for ever by the laws of mechanism, in the most perfect state, by an absolute inviolable necessity, though in some things he differs from Des Cartes. After Sir Isaac Newton's philosophy was published in 1687, he printed an essay on the celestial motions, Act. Erud. 1689, where he admits of the circulation of the ether with Des Cartes, and of gravity with Sir Isaac Newton: though he has not reconciled these principles, nor shown how gravity arose from the impulse of this ether, nor how to account for the planetary revolutions, and the laws of the planetary motions in their respective orbits. That which he calls the *harmonical circulation* is the angular velocity of any one planet, which decreases from the perihelium to the aphelium in the same proportion as its distance from the sun increases; but this law does not apply to the motions of the different planets compared together: because the velocities of the planets, at their mean distances, decrease in the same proportion as the square roots of the numbers expressing those distanees. Besides, his system is defective, as it does not reconcile the circulation of the ether with the free motions of the comets in all directions, or with the obliquity of the planes of the planetary orbits; nor resolve other objections to which the hypothesis of the plenum and vortices is liable. Soon after the period just mentioned, the dispute commenced concerning the invention of the method of fluxions, which led Mr Leibnitz to take a very decided part in opposition to the philosophy of Sir Isaac Newton. From the wisdom and goodness of the Deity, and his principle of a sufficient reason, he concluded that the universe was a perfect work, or the best that could possibly have been made; and that other things, which were incommodious and evil, were permitted as necessary consequences of what was best: the material system, considered as a perfect machine, can never fall into disorder, or require to be set right; and to suppose that God interposes in it, is to lessen the skill of the Author, and the perfection of his work. He expressly charges an impious tendency on the philosophy of Sir Isaac Newton, because he asserts, that the fabric of the universe and course of nature could not continue for ever in its present state, but would require, in process of time, to be re-established or renewed by the hand of its Former. The perfection of the universe, by reason of which it is capable of continuing for ever by mechanical laws in its present state, led Mr Leibnitz to distinguish between the quantity of motion and the force of bodies; and, whilst he owns, in opposition to Des Cartes, that the former varies, to maintain that the quantity of force is for ever the same in the universe, and to measure the forces of bodies by the squares of their velocities.

Leibnitzian Philosophy.

This system also requires the utter exclusion of atoms, or of any perfectly hard and inflexible bodies. The advocates of it allege, that according to the law of continuity, as they call a law of nature invented for the sake of the theory, all changes in nature are produced by insensible and infinitely small degrees; so that no body can, in any case, pass from motion to rest, or from rest to motion, without passing through all possible intermediate degrees of motion: whence they conclude, that atoms or perfectly hard bodies are impossible: because if two of them should meet with equal motions, in contrary directions, they would necessarily stop at once, in violation of the law of continuity.

Mr Leibnitz proposes two principles as the foundation of all our knowledge; the first, that it is impossible

Leibnitzian Philosophy.

sible for a thing to be and not to be at the same time, which, he says, is the foundation of speculative truth: the other is, that nothing is without a sufficient reason why it should be so rather than otherwise; and by this principle, according to him, we make a transition from abstracted truths to natural philosophy. Hence he concludes, that the mind is naturally determined, in its volitions and elections, by the greatest apparent good, and that it is impossible to make a choice between things perfectly like, which he calls *indiscernibles;* from whence he infers, that two things perfectly like could not have been produced even by the Deity: and he rejects a vacuum, partly because the parts of it must be supposed perfectly like to each other. For the same reason he also rejects atoms, and all similar particles of matter, to each of which, though divisible *in infinitum*, he ascribes a *monad* (Act. Lipsiæ 1698, p. 435.) or active kind of principle, endued, as he says, with perception and appetite. The essence of substance he places in action or activity, or, as he expresses it, in something that is between acting and the faculty of acting. He affirms absolute rest to be impossible; and holds motion, or a sort of *nisus*, to be essential to all material substances. Each monad he describes as representative of the whole universe from its point of sight; and after all, in one of his letters he tells us, that matter is not a substance, but a *substantiatum*, or *phenomené bien fonde*. He frequently urges the comparison between the effects of opposite motives on the mind, and of weights placed in the scales of a balance, or of powers acting upon the same body with contrary directions. His learned antagonist Dr Clarke denies that there is a similitude between a balance moved by weights, and a mind acting upon the view of certain motives; because the one is entirely passive, and the other not only is acted upon, but acts also. The mind, he owns, is purely passive in receiving the impression of the motive, which is only a perception, and is not to be confounded with the power of acting after, or in consequence of, that perception. The difference between a man and a machine does not consist only in sensation and intelligence, but in this power of acting also. The balance, for want of this power, cannot move at all when the weights are equal; but a free agent, he says, when there appear two perfectly alike reasonable ways of acting, has still within itself a power of choosing; and it may have strong and very good reasons not to forbear.

The translator of Mosheim's Ecclesiastical History observes, that the progress of Arminianism has declined in Germany and several parts of Switzerland, in consequence of the influence of the Leibnitzian and Wolfian philosophy. Leibnitz and Wolf, by attacking that liberty of indifference, which is supposed to imply the power of acting not only without, but against, motives, struck, he says, at the very foundation of the Arminian system. He adds, that the greatest possible perfection of the universe, considered as the ultimate end of creating goodness, removes from the doctrine of predestination those arbitrary procedures and narrow views with which the Calvinists are supposed to have loaded it, and gives it a new, a more pleasing, and a more philosophical aspect. As the Leibnitzians laid down this great end as the supreme object of God's universal dominion, and the hope to which all his dispensations are directed; so they concluded, that if this end was proposed, it must be accomplished. Hence the doctrine of necessity, to fulfil the purposes of a predestination founded in wisdom and goodness; a necessity, physical and mechanical, in the motions of material and inanimate things, but a necessity moral and spiritual in the voluntary determinations of intelligent beings, in consequence of propellent motives, which produce their effects with certainty, though these effects be contingent, and by no means the offspring of an absolute and essentially immutable fatality. These principles, says the same writer, are evidently applicable to the main doctrines of Calvinism; by them predestination is confirmed, though modified with respect to its reasons and its end: by them irresistible grace (irresistible in a moral sense) is maintained upon the hypothesis of propellent motives and a moral necessity: the perseverance of the saints is also explicable upon the same system, by a series of moral causes producing a series of moral effects.

Leibnitzian Philosophy, Leicester.

LEICESTER, the capital of a county of the same name in England, upon the river Leire, now called *Soure*. From its situation on the Fosse way, and the many coins and antiquities discovered here, it seems probable that it was a place of some note in the time of the Romans. In the time of the Saxons it was a bishop's see, and afterwards so repaired and fortified by Edelflida, that it became, according to Matthew Paris, a most wealthy place, having 32 parish churches; but in Henry the Second's reign it was in a manner quite ruined, for joining in rebellion against him with Robert earl of Leicester. In the reign of Edward III. however, it began to recover by the favour of his son Henry Plantagenet, duke and earl of Lancaster, who founded and endowed a collegiate church and hospital here. It is a borough and corporation, governed by a mayor, recorder, steward, bailiff, 24 aldermen, 48 common council men, a solicitor, a town clerk, and two chamberlains. It had its first charter from King John. The freemen are exempt from paying toll in all the fairs and markets of England. It has three hospitals; that mentioned above, built by Henry Plantagenet duke of Lancaster, and capable of supporting 100 aged people decently; another erected and endowed in the reign of Henry VIII. for 12 poor lazars; and another for six poor widows. The castle was a prodigious large building, where the duke of Lancaster kept his court. The hall and kitchen still remain entire, of which the former is very spacious and lofty; and in the tower over one of the gateways is kept the magazine for the county militia. There was a famous monastery here, anciently called from its situation in the meadows, *St Mary de Pratis* or *Prez*. In these meadows is now the course for the horse race. It is said that Richard III. who was killed at the battle of Bosworth, lies interred in St Margaret's church. The chief business of Leicester is the stocking trade, which employs about 7000 or 8000 persons. In a parliament held here in the reign of Henry V. the first law for the burning of heretics was made, levelled against the followers of Wickliffe, who was rector of Lutterworth in this county, and where his pulpit is said still to remain. The town suffered greatly in the civil wars, by two successive sieges. It has given the title of *earl* to several noble families. The present earl was created in 1784,

and

Leicester ‖ Leighlin.

and is the marquis of Townshend's son. Its market on Saturday is one of the greatest in England for provisions, especially for corn and cattle. The population in 1811 was estimated at 23,146.

LEICESTERSHIRE, an inland county of England, in form almost circular. It has Nottinghamshire and Derbyshire to the north; Rutlandshire and Lincolnshore on the east; Warwickshire on the west, from which it is parted by the Roman military way called *Watling-street;* and by Northamptonshire on the south; and is about 170 miles in circumference. As it lies at a great distance from the sea, and is free from bogs and marshes, the air is sweet and wholesome. It is a champaign country in general, and abundantly fertile in corn and grass, being watered by several rivers, as the Soure, or Sare, which passes through the middle of it, and abounds in excellent salmon and other fish; the Wreke, Trent, Eye, Sense, Auker, and Aven. These rivers being mostly navigable, greatly facilitate the trade of the county. In some parts there is a great scarcity of fuel, both wood and coal; but in the more hilly parts there is plenty of both, together with great flocks of sheep. Besides wheat, barley, oats, and pease, it produces the best beans in England. They grow so tall and luxuriant in some places, particularly about Barton in the Beans, that they look, towards the harvest time, like a forest; and the inhabitants eat them not only when they are green as in other places, but all the year round; for which reason their neighbours nickname them *bean bellies.* They have plenty of good wool, of which they not only make great quantities of stockings, but send a great quantity unmanufactured into other parts of England. They make great profit of their corn and pulse; and likewise breed great numbers of coach and dray horses. It is not uncommon to rent grass farms from 500l. to 2000l. a-year. It is in the midland circuit, and diocese of Lincoln: and sends four members to parliament, two for Leicester, and two for the county. It contains 200 parishes; and had 150,419 inhabitants in 1811.

LEIGH, SIR EDWARD, a very learned Englishman, was born at Shawel in Leicestershire, and educated at Magdalen hall, Oxford. He was a member of the long parliament, and one of the members of the house of commons who were appointed to sit in the assembly of divines. He was afterwards colonel of a regiment for the parliament; but in 1648 was numbered among the Presbyterians who were turned out, and in December he was imprisoned. From this period to the Restoration he employed himself in writing a considerable number of learned and valuable books, which showed profound learning, a knowledge of the languages, and much critical sagacity; and of which a list is given by Antony Wood. Sir Edward died at his house called Rushall Hall, in Staffordshire, June 2. 1671; and was buried in the chancel of Rushall church.

LEIGHLIN, a town of Ireland, situated in the county of Carlow, and province of Leinster; about 43 miles from Dublin, near the river Barrow. It is a borough, and formerly returned two members to parliament; patronage in the bishop of the diocese, this being a bishopric united to Ferns. At the east end of the church of Old Leighlin is a famous well covered with great ash trees, and dedicated to St Lasarian. This place was formerly a city, though now a very mean village, and the cathedral has been kept in good repair. It was a *sole* bishopric, founded in 632, and joined to Ferns in 1600. It is reported, that Gurmundus a Danish prince was buried in this church. The last bishop of Leighlin before its union with Ferns, was the right reverend Robert Grave, who coming by sea to be installed, suffered shipwreck in the harbour of Dublin, and perished in the waves. This cathedral was burnt to the ground, it is said, by lightning; and rebuilt, A. D. 1232, then dedicated to St Lasarian or Lazarinus, before mentioned; since the sees were joined, it is made use of as a parish church. Leighlin bridge is situated about two miles from this village; it was destroyed by the Irish in 1577. Here are the remains of a castle and of an old abbey. This is a post town, and has fairs in May, September, and October.

Leighlin ‖ Leinster.

LEIGHTON, ROBERT, archbishop of Glasgow. During Cromwell's usurpation, he was minister of a church near Edinburgh, and distinguished himself by his charity, and his aversion to religious and political disputes. The ministers were then called over yearly in the synod, and were commonly asked, Whether they had preached to the times? "For God's sake (answered Leighton), when all my brethren preach to the times, suffer me to preach about eternity." His moderation, however, giving offence, he retired to a life of privacy. But soon after, he was called by the unanimous voice of the magistrates, to preside over the college of Edinburgh; where, during ten years, he displayed all the talents of a prudent, wise, and learned governor. Soon after the Restoration, when the ill-judged affair of introducing Episcopacy into Scotland was resolved on, Leighton was consecrated bishop of Dunblane, and immediately gave an instance of his moderation: for when Sharpe and the other bishops intended to enter Edinburgh in a pompous manner, Leighton remonstrated against it; but finding that what he said had no weight, he left them, and went to Edinburgh alone. Leighton, in his own diocese, set such a remarkable example of moderation, that he was revered even by the most rigid of the opposite party. He went about, preaching without any appearance of pomp; he gave all he had to the poor; and removed none of the ministers, however exceptionable he might think their political principles. But finding that none of the other bishops would be induced to join, as he thought, properly in the work, he went to the king, and resigned his bishopric, telling him he would not have a hand in such oppressive measures. Soon after, the king and council, partly induced by this good bishop's remonstrances, and partly by their own observations, resolved to carry on the cause of Episcopacy in Scotland on a different plan; and with this view, Leighton was persuaded to accept of the archbishopric of Glasgow, on which he made one effort more; but finding it not in his power to stem the violence of the times, he resigned his archbishopric, and retired into Sussex, where he devoted himself to acts of piety. He died in the year 1684. He was of a most amiable disposition, strict in his life, polite, cheerful, engaging in his manners, and profoundly learned. He left many sermons and useful tracts, which are greatly esteemed.

LEINSTER, the eastern province of Ireland, bound-

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Leinster ‖ Leith.

ed by Ulster on the north; St George's, or the Irish channel, on the east and south; and by the provinces of Connaught and Munster on the west. The capital city of this province and of the kingdom is Dublin. It contains 12 counties, viz. Carlow, Dublin, Kildare, Kilkenny, King's county, Longford, Louth, Meath, Queen's county, West Meath, Wexford, and Wicklow. It is the most level and best cultivated province in the kingdom; containing 2,642,958 Irish plantation acres, 858 parishes, 99 baronies, and 53 boroughs; it is about 124 miles long and 74 broad, and extends from 51° 45′ to 55° 45′ north latitude. Dermond king of Leinster marrying his daughter Eva to Strongbow earl of Pembroke, on his decease made him his universal heir; whereby the earl inherited the province of Leinster, and was afterwards enfeoffed of it by Henry II. He died in 1176, and left an only daughter Isabel, espoused to William Marshal earl of Pembroke; by her he had five sons, who succeeded to his great estates in Leinster. This province gives title of duke to the ancient and noble family of Fitzgerald. In the early ages, this district was almost one continued forest, and was principally the seat of the Kinselaghs.

LEIPSIC, a large, strong, and populous town of Saxony in Germany, with a castle, and a famous university. It is neat, and regularly built, and the streets are lighted in the night; it carries on a great trade, and has a right to stop and sell the merchandises designed to pass through it, and the country for 75 miles round has the same privilege. There are three great fairs every year, at the beginning of the year, Easter and Michaelmas, which last 15 days each. There are six handsome colleges belonging to the university, besides the private colleges. The townhouse makes an indifferent appearance, but the exchange is a fine structure. It is seated in a plain near the confluence of the Playsse, the Elster, and the Barde. A battle was fought here on the 18th October 1813, between the French under Bonaparte, and the Russians, Austrians, and Prussians, which ended in the total defeat of the former. E. Long. 12. 55. N. Lat. 51. 19.

LEITH, (anciently called *Inverleith*), the port of Edinburgh, is seated on the banks of the Forth, about two miles from the capital. It is built on both sides of the harbour; by which it is divided into two parts, called *North* and *South Leith*. The communication between these was by a stone bridge of three arches founded by Robert Ballantyne abbot of Holyroodhouse in 1493, but many years ago pulled down. The harbour is formed by the conflux of the rivulet called the *Water of Leith* with the frith of Forth. The depth of water, at neap tides, is about nine feet; but in high spring tides, it is about 16 feet. In the beginning of the 18th century, the town council of Edinburgh improved the harbour at an enormous expence, by extending a stone pier a considerable way into the sea. In 1777, they erected an additional stone quay towards its west side. Upwards of 100 ships could then lie conveniently in this port: but it can now admit of a much greater number, in consequence of improvements. In order to enlarge it, the old bridge was pulled down, and a drawbridge erected a little to the eastward. A second drawbridge, lower down, and upon a more improved plan, has since been built. It is accommodated with wet and dry docks, and other conveniences for ship-building, which is there carried on to some extent, as vessels come to Leith to be repaired from many parts of Scotland. A new bason was completed and opened in 1805, which affords a safe and convenient station for trading vessels; and another of the same size was opened in 1817. The road of Leith affords good anchorage for ships of the greatest size. Leith.

About the close of the American war, when the people were alarmed by the appearance of Paul Jones in the frith with no more than three armed vessels, threatening to destroy all the ships in the roads and harbour, a battery was erected to the westward of the citadel. A party of artillery with a considerable park is constantly stationed at the battery. A martello tower, a quarter of a mile from the pier-end, has since been added.

The harbour of Leith was granted to the community of Edinburgh by King Robert in 1329; but the banks of the harbour belonged to Logan of Restalrig, a turbulent and ambitious baron, from whom the citizens were under the necessity of purchasing the bank or waste piece of ground between the houses and the rivulet above mentioned, for the purposes of wharfs, as well as for erecting shops and granaries, neither of which they could do before. As the situation of Leith, however, is much more convenient for trade than that of Edinburgh, which is two miles distant from the harbour, the inhabitants of the metropolis have fallen upon various methods of restraining the trade of Leith. They first purchased, from Logan of Restalrig, an exclusive privilege of carrying on every species of traffic in the town of Leith, and of keeping warehouses and inns for the entertainment of strangers in that place; and in 1483, the town council prohibited, under severe penalties, the citizens of Edinburgh from taking into partnership any inhabitant of Leith. To free themselves from this oppression, the people of Leith purchased the superiority of their town from Logan of Restalrig, for 3000l. Scots, and it was erected into a burgh of barony by the queen regent, Mary of Lorraine, who promised to erect it into a royal borough. She died, however, before this was accomplished; and upon her death, Francis and Mary, in violation of the private rights of the people of Leith, resold the superiority to the town of Edinburgh, to whom it has since been confirmed by grants from successive sovereigns.

On the breaking out of the disturbances at the Reformation, the queen regent caused the whole town to be fortified, that the French troops might have a more ready inlet into the kingdom. It was accordingly surrounded with a wall, having eight bastions: but this wall went no farther than the street now called *Bernard's nook*, because at that time the sea came up the length of that street; and even as late as 1623, a house situated exactly where the weigh-house is at present, is described as bounded on the east by the "sand of the sea-shore." All that space, therefore, on which the row of houses nearest the harbour of Leith now stands, has been gained since that time from the sea.

In the time of Charles I. a fortification was erected at Leith by the Covenanters. Cromwell built a strong fort at the place still called the *citadel* in North Leith; but it was pulled down on the restoration of Charles II. by order of government. A gate with portcullises are the present remains of that fortification.—A pa-

Leith. lace also appears to have formerly stood here, situated at the north-east boundaries of the former town, on the spot where the present weigh-house stands. It was destroyed by the English in the time of Henry VIII. The remains of this building, called the *king's work*, with a garden, and a piece of waste land that surrounded it, was erected into a barony by James VI. and bestowed upon Bernard Lindsay of Lochill, groom of the chamber to that prince. He is said to have fully repaired, and appropriated it to the recreations of the court; but it soon fell from its dignity, and became subservient to much more ignoble purposes. The tennis court was converted into a weigh-house; and the street which bounds it still bears the name of the founder, from whence it is called *Bernard's nook*.

As Leith lay within the parish of Restalrig, the church of Restalrig was of consequence the place of worship for the inhabitants of Leith; but in 1650 the Assembly ordered that church to be pulled down as a monument of idolatry, so that Leith wanted a parish church for upwards of 50 years. During that period they resorted for worship to a large and beautiful chapel already built, and dedicated to St Mary, which is now called *South Leith Church;* and in 1609 this chapel was by authority of parliament declared to be the parish church of the district: so that Restalrig is now in the parish of South Leith, as the latter was formerly in that of Restalrig. In 1772, a chapel of ease was erected by the inhabitants, as the parish church was insufficient to contain the number of hearers. There are also an Episcopal and several dissenting congregations in Leith. North Leith is a parish by itself, and a handsome new church was built there for the accommodation of the inhabitants in 1816. A new school was built by subscription in 1805.

Though a very great trade is carried on between Leith and many foreign ports, yet the articles of export and import fluctuate so much, that it would be useless to enter into any details either as to species or quantity. In general, the imports from France, Spain, and Portugal, are wines, brandy, and fruits; from the West Indies and America, rice, indigo, rum, sugar, and logwood. But the principal foreign trade of Leith is by the eastern seas, for the navigation of which it is most happily situated. To Germany, Holland, and the Baltic, it exports lead, glass ware, linen and woollen stuffs, and a variety of other goods; and from thence it imports immense quantities of timber, oak bark, hides, linen rags, pearl ashes, flax, hemp, tar, and many other articles. The Baltic trade was long carried on to a great extent, but has rather diminished. The number of vessels which entered inwards in 1818, was, in the foreign trade, 398 British, and 121 foreign; outwards, 281 British, and 49 foreign. Of coasting vessels there entered inwards 2115, outwards 1447. The coasting trade is a principal branch for the shipping at Leith, including those which belong to other ports on the Forth, which are said to make about one-fourth of the tonnage of the Leith vessels. The vessels employed in the London trade, which amount to 27, belonging to four companies, are in general of a large size, elegantly constructed, well manned, and furnished with excellent accommodations for passengers. During this year (1821) steam boats have begun to ply between Leith and London. These vessels carry passengers only, and make the voyage in about 60 hours. Leith. The largest ships in this port, however, are those employed in the Greenland fishery. The annual amount of shore dues averages 10,000l.; harbour dues, after deducting pilotage, about 2000l. and dock dues about 5000l.

The shipping at Leith renders the demand for ropes, sail cloth, and cordage, very considerable; and different companies carry on these manufactures, besides private persons who deal less considerably. The first of those companies was established in the beginning of the 18th century. This has proved a prosperous and lucrative concern.

In the middle of the 17th century, a manufactory of green glass was established at the citadel of Leith. Chopin bottles were sold at 4s. 6d. per dozen, and other bottles in proportion. Soon afterwards this article was manufactured also in North Leith; and in 1707, chopin bottles were sold at 2s. 6d. per dozen, and so on proportionably. That house being burnt down in 1746, a new house was built the following year on South Leith sands, and an additional one in 1764. Two companies are now engaged in the glass manufacture; the one for common bottles, and the other for window glass and crystal ware of all sorts. Manufactures of soft soap and candles were erected by St Clair of Roslin and some merchants; the former in 1750, and the latter in 1770: a manufacture of hard soap was also established in 1770.

There is, beside a branch of the British Linen Company, a banking house in Leith, called the *Leith Banking Company*, who issue notes, and carry on business to a considerable extent. An elegant building for the accommodation of this company was erected in 1807.

The inhabitants of Leith were divided into four classes; and these erected into corporations by the queen dowager, Mary of Lorraine. These were mariners, maltmen, trades, and traffickers. The first of these consisted of shipmasters and sailors; the second, of malt-makers and brewers; the third of coopers, bakers, smiths, wrights, &c.; and the fourth, of merchants and shopkeepers. Of these corporations the mariners are the most considerable. They obtained from Mary of Lorraine a gift, afterwards ratified by William and Mary, of one penny duty on the ton of goods in the harbour of Leith, for the support of their poor. This duty, which not many years ago did not amount to 40l. a-year, now rises from 70l. to 120l. as trade flourishes. For the same purposes the shipmasters also pay 6d. a pound out of their own wages annually; and the like sum they give upon the wages of their sailors. From these and other donations, this corporation is enabled to pay from 600l. to 700l. a-year to their poor. Opposite to South Leith church there is a handsome building belonging to them, called the *Trinity Hospital*, because originally consecrated to the Holy Trinity. In this house some of their poor used formerly to be maintained, but now they are all out-pensioners.

As the town of Leith was very ill supplied with water, and the streets were neither properly cleaned nor lighted, an act for remedying these defects was passed in the year 1771, appointing certain persons from among

Leith & Leland.

mong the magistrates of Edinburgh, lords of session, inhabitants of Edinburgh and Leith, and members of the corporations of Leith, *commissioners of police;* empowering them to put this act in execution; and, for that purpose, to levy a sum not exceeding 6d. in the pound upon the valued rent of Leith. The great change which has since taken place on the streets of Leith shows the good effect of this act, and that it has both been judiciously prepared, and attentively executed. Leith, however, has never been well supplied with water: that brought in pipes from Lochend in the eastern part of the parish is not of a good quality, for it is not derived from springs.

In 1801, Leith contained 20,363 inhabitants; and by the returns in the present year (1821), the number is found to be 26,000.

LEITRIM, a county of Ireland, situated in the province of Connaught, is bounded on the north by the bay of Donnegal and part of Fermanagh, on the south and west by Sligo and Roscommon, and on the east by Fermanagh and Cavan. It is a fruitful county; and, though mountainous, produces great herds of black cattle; but has few places of note. It contains 206,830 Irish plantation acres, 21 parishes, 5 baronies, and 2 boroughs, and formerly sent six members to parliament; and is about 42 miles long, and 17 broad.

LEITRIM, the shire town of the county of that name, is pleasantly situated on the banks of the river Shannon, about 80 miles from Dublin; and appears to have been formerly a place of some note. St Mac Liegus, son of Cernac, was bishop here: and his festival is observed on the 8th of February.

LEIXLIP, a post and fair town of Ireland, pleasantly situated in the county of Kildare, and province of Leinster, about eight miles from Dublin. Near it are the ruins of the church and castle of Confy. The castle of Leixlip is beautifully situated on the banks of the river Liffey: it is a fine edifice, with large and pleasant gardens, at one side of which is a fine waterfall called the *Salmon leap*, there being plenty of that species of fish hereabouts. A mile from this is Castletown, the magnificent seat of Mr Conolly.

LELAND, JOHN, a celebrated English antiquary, was born in London about the year 1507. Having lost his parents when a child, he had the good fortune to find a friend and patron in one Mr Thomas Miles, who placed him in St Paul's school, of which the grammarian Lilye was master. From that school he was sent to Christ's college, Cambridge; whence, after some years residence, he removed to All-Souls, Oxford. From Oxford he went to Paris, chiefly with a design to study the Greek language, which at that time was but little understood in this kingdom. On his return to England he took orders, and was soon appointed chaplain to King Henry VIII. who also gave him the rectory of Poppeling, in the marshes of Calais, appointed him his librarian, and in 1533 granted to him, by commission under the great seal, the office of king's antiquary, an office never borne by any other person before or since. By this commission he was empowered to search for ancient writings in all the libraries of colleges, abbeys, priories, &c. in his majesty's dominions. We are told by his last biographer, that he renounced Popery soon after his return to England; but he quotes no authority. Be this as it may, in 1536 he obtained a dispensation to keep a curate at Poppeling, and set out on his journey in search of antiquities. In this employment he spent six years, during which time he visited every part of England where monuments of antiquity were to be expected. After his return, in the year 1542, he was presented by the king to the rich rectory of Haseley in Oxfordshire; and in the following year he gave him a prebend of King's college, now Christ's church, in Oxford, besides that of East and West Knowle, in the cathedral of Salisbury. Being thus amply provided for, he retired to a house of his own in the parish of St Michael le Querne in London, where he spent six years more in digesting the materials which he had collected. King Henry VIII. died in 1547; and in a short time after, poor Leland lost his senses. He was at first seized with a deep melancholy; which was succeeded by a total deprivation of his reason. In this dreadful state he continued till the beginning of the year 1552, when he was happily released by death. He was buried in the church of St Michael le Querne, which was destroyed by the fire in 1666. Mr Leland is remembered as a man of great learning, an universal linguist, an excellent Latin poet, and a most indefatigable and skilful antiquary. On his death, King Edward VI. gave all his papers to Sir John Checke, his tutor and Latin secretary of state. The king dying, and Sir John being obliged to leave the kingdom, he gave four folio volumes of Leland's collections to Humphrey Purefoy, Esq. which in 1612, were by his son given to William Burton, author of the history of Leicestershire. This gentleman also became possessed of the Itinerary in 8 vols folio, which, in 1632, he deposited in the Bodleian library. Many other of Leland's manuscripts, after the death of Sir John Checke, fell into the hands of Lord Paget, Sir William Cecil, and others, which at last fortunately came into the possession of Sir John Cotton. These manuscripts were of great use to all our subsequent antiquarians, particularly Camden, Sir William Dugdale, Stowe, Lambard, Dr Batteley, Ant. Wood, &c. His Itinerary throughout most parts of England and Wales, was published by Mr Hearne, 9 vols 8vo, in 1710-11; as was also his *Collectanea de rebus Britannicis*, 6 vols 8vo, in 1715.

Leland.

LELAND, *John*, a distinguished writer in defence of Christianity, was born at Wigan in Lancashire in 1691, of eminently pious and virtuous parents. They took the earliest care to season his mind with proper instructions; but, in his sixth year, the smallpox deprived him of his understanding and memory, and expunged all his former ideas. He continued in this deplorable state near a twelvemonth, when his faculties seemed to spring up anew; and though he did not retain the least traces of any impressions made on him before the distemper, yet he now discovered a quick apprehension and strong memory. In a few years after, his parents settled in Dublin, which situation gave him an easy introduction to learning and the sciences. When he was properly qualified by years and study, he was called to be pastor to a congregation of Protestant dissenters in that city. He was an able and acceptable preacher, but his labours were not confined to the pul-

Leland || Lely.

pit. The many attacks made on Christianity, and by some writers of no contemptible abilities, engaged him to consider the subject with the exactest care, and the most faithful examination. Upon the most deliberate inquiry, the truth and divine original, as well as the excellence and importance of Christianity, appearing to him with great lustre, he published answers to several authors who appeared successively in that cause. He was indeed a master in this controversy; and his history of it, styled "A View of the Deistical Writers that have appeared in England in the last and present Century," &c. is very greatly and deservedly esteemed. In the decline of life he published another laborious work, entitled "The Advantage and Necessity of the Christian Revelation, shown from the State of Religion in the ancient Heathen World, especially with respect to the Knowledge and Worship of the One true God; a Rule of Moral Duty, and a State of Future Rewards and Punishments: to which is prefixed, a long and preliminary Discourse on Natural and Revealed Religion," 2 vols 4to. This noble and extensive subject, the several parts of which have been slightly and occasionally handled by other writers, Leland has treated at large with the greatest care, accuracy, and candour. And, in his "View of the Deistical Writers," his cool and dispassionate manner of treating their arguments, and his solid confutation of them, have contributed more to depress the cause of atheism and infidelity, than the angry zeal of warm disputants. But not only his learning and abilities, but also his amiable temper, great modesty, and exemplary life, recommended his memory to general esteem and affection. He died in 1766.

LELEGEIS, the ancient name of Miletus, from the Leleges, the first inhabitants of it.

LELEGES, anciently a people of Asia, of Greek original: the name denoting "a collection of people:" they first occupied the islands; then passing over to the continent, they settled partly in Mysia on the Sinus Adramyttenus, and partly in that part of Ionia next Caria.—There were Leleges also of Laconia. These went to the Trojan war with Altes their king. Achilles plundered their country, and obliged them to retire to the neighbourhood of Halicarnassus, where they fixed their habitation.—The inhabitants of Laconia and of Megara also bore this name for some time, from Lelex one of their kings.

LELEX, an Egyptian who came with a colony to Megara, where he reigned about 200 years before the Trojan war. His subjects were called from him *Leleges*.—Also the name of a Greek who was the first king of Laconia in Peloponnesus. His subjects were also called *Leleges*, and the country where he reigned *Lelegia*.

LELY, Sir Peter, an eminent painter, was born in Westphalia in the year 1617. He was placed as a disciple with Peter Grebber at Haerlem; and in 1641 was induced, by the encouragement Charles I. gave to the fine arts, to come to England. He became state-painter to Charles II. who knighted him; and being as complete a gentleman as a painter, that king took pleasure in conversing with him. He practised portrait-painting, and succeeded so well that he was preferred before all his contemporaries. Hence he became perpetually involved in business; so that he was thereby prevented from going into Italy to finish the course of his studies, which in his younger days he was very desirous of: however, he made himself amends, by getting the best drawings, prints, and paintings, of the most celebrated Italian masters. Among these were the better part of the Arundel Collection, which he had from that family, many whereof were sold after his death at prodigious rates, bearing upon them his usual mark of P. L.—The advantage he reaped from this collection, the best chosen of any one of his time, appears from that admirable style which he acquired by daily conversing with the works of those great masters. In his correct draught and beautiful colouring, but more especially in the graceful airs of his heads, and the pleasing variety of his postures, together with the gentle and loose management of the draperies, he excelled most of his predecessors. Yet the critics remark, that he preserved in almost all his female faces a drowsy sweetness of the eyes peculiar to himself; for which he is reckoned a mannerist. The hands of his portraits are remarkably fine and elegantly turned; and he frequently added landscapes in the back grounds of his pictures, in a style peculiar to himself, and better suited to his subject than most men could do. He excelled likewise in crayon painting. He was familiar with, and much respected by, persons of the greatest eminence in the kingdom. He became enamoured of a beautiful English lady, to whom he was some time after married; and he purchased an estate at Kew in the county of Surrey, to which he often retired in the latter part of his life. He died of an apoplexy in 1680 at London; and was buried at Covent Garden church, where there is a marble monument erected to his memory, with his bust, carved by Mr Gibbons, and a Latin epitaph, written, as is said, by Mr Flatman.

Lely || Lemery.

LEMBERG, a town of Poland, capital of Red Russia, seated in the palatinate of Lemburg, on the river Pelteu. It is pretty well fortified, and defended by two citadels, one of which is seated on an eminence without the town. The square, the churches, and the public buildings, are magnificent; and it is a large and rich trading place. It has a Roman Catholic archbishop, and an Armenian as well as a Russian bishop; but the Protestants are not tolerated. The city was reduced to the last extremity by the rebel Cossacs and Tartars, and was forced to redeem itself with a great sum of money. In 1672, it was besieged in vain by the Turks; but in 1704, was taken by storm by Charles XII. of Sweden. E. Long. 23. 59. N. Lat. 49. 51.

LEMERY, Nicholas, a celebrated chemist, born at Rouen in Normandy in 1645. After having made the tour of France, he, in 1672, commenced an acquaintance with M. Martyn, apothecary to Monsieur the Prince; and performed several courses of chemistry in the laboratory of this chemist at the Hotel de Conde; which brought him to the knowledge and esteem of the prince. He provided himself at length with a laboratory of his own, and might have been made a doctor of physic: but he chose to continue an apothecary. from his attachment to chemistry, in which he opened public lectures; and his confluence of scholars was so great as scarcely to allow him room to perform his operations. The true principles of chemistry in his time were but ill understood; Lemery was the first who abolished the senseless jargon of barbarous terms,

reduced

Lemery || Lemnos.

reduced the science to clear and simple ideas, and promised nothing that he did not perform. In 1681, he was disturbed on account of his religion; and came to England, where he was well received by Charles II.: but affairs not promising him the same tranquillity, he returned to France, and sought for shelter under a doctor's degree; but the revocation of the edict of Nantz drove him into the Romish communion to avoid persecution. He then became associate chemist and pensionary in the Royal Academy of Sciences, and died in 1715. He wrote, A course of chemistry; An universal pharmacopœia; An universal treatise of drugs; and, a treatise on antimony.

LEMING, in *Zoology*. See MUS, MAMMALIA *Index*.

LEMMA, (of λαμβάνω, "I assume,") in *Mathematics*, denotes a previous proposition, laid down in order to clear the way for some following demonstration; and prefixed either to theorems, in order to render their demonstration less perplexed and intricate; or to problems, to make their resolution more easy and short. Thus, to prove a pyramid one-third of a prism, or parallelopiped, of the same base and height with it, the demonstration whereof in the ordinary way is difficult and troublesome; this lemma may be premised, which is proved in the rules of progression, that the sum of the series of the squares, in numbers in arithmetical progression, beginning from 0, and going on 1, 4, 9, 16, 25, 36, &c. is always subtriple of the sum of as many terms, each equal to the greatest; or is always one-third of the greatest term multiplied by the number of terms. Thus, to find the inflection of a curve line, this lemma is first premised, that a tangent may be drawn to the given curve in a given point.

So in physics, to the demonstration of most propositions, such lemmata as these are necessary first to be allowed: that there is no penetration of dimensions; that all matter is divisible; and the like. As also in the theory of medicine, that where the blood circulates, there is life, &c.

LEMNA, DUCKMEAT, a genus of plants belonging to the monœcia class; and in the natural method ranking under the 54th order, *Miscellaneæ*. See BOTANY *Index*.

LEMNIAN EARTH, *Terra Lemnia*, a medicinal, astringent sort of earth, of a fatty consistence and reddish colour; used in the same cases as BOLE. It has its name from the island of Lemnos, whence it is chiefly brought. Many form it into round cakes, and impress a seal upon it; whence it is also called *terra sigillata*. A sort is said to be imported from Senegal, which is not properly an earth, though so called, but composed of the dried pulp of the fruit of the BAOBAB.

LEMNIUS, LÆVINUS, a famous physician, born at Ziric Zee in Zealand, in 1505. He practised physic with applause; and after his wife's death being made priest, became canon of Ziric Zee, where he died in 1560. He left several works, the principal of which is entitled *De occultis naturæ miraculis*.

LEMNOS, in *Ancient Geography*, a noble island in the Ægean sea, near Thrace, called also *Dipolis*, from its consisting of two towns. The first inhabitants were the Pelasgi, or rather the Thracians, who were murdered by their wives. After them came the children of the Lemnian widows by the Argonauts, whose descendants were at last expelled by the Pelasgi, about 1100 years before the Christian era. Lemnos is about 112 miles in circumference according to Pliny; who says, that it is often shadowed by Mount Athos, though at the distance of 87 miles. It has been called *Hipsipyle* from Queen Hipsipyle. It is famous for a certain kind of earth or chalk called *terra Lemnia*, or *terra sigillata*, from the seal or impression which it can bear, and which is used for consolidating wounds. As the inhabitants were blacksmiths, the poets have taken occasion to fix the forges of Vulcan in that island, and to consecrate the whole country to his divinity. Lemnos is also celebrated for a labyrinth, which, according to some traditions, surpassed those of Crete and Egypt. Some remains of it were still visible in the age of Pliny. The island of Lemnos was reduced under the power of Athens by Miltiades.

Lemnos || Lemures.

LEMON. See CITRUS, BOTANY *Index*.

LEMON Island, one of the Skelig islands so called; situated off the coast of the county of Kerry, in the province of Munster in Ireland. It is rather a round rock, always above water, and therefore no way dangerous to ships. An incredible number of gannets and other birds breed here; and it is remarkable that the gannet nestles nowhere on the southern coasts of Ireland but on this rock, though many of them are seen on all parts of our coast on the wing. There is another rock on the northern coast of Ireland remarkable for the same circumstance.

LEMONADE, a liquor prepared of water, sugar, and lemon or citron juice, which is very cooling and grateful.

LEMOVICES, a people of Aquitania, situated between the Bituriges Cubi to the north, the Arverni to the east, the Cadurci to the south, and the Pictones to the west. Now the *Limosin*, and *La Marche*.

LEMUR, the MAUCAUCO, a genus of quadrupeds belonging to the order of primates. See MAMMALIA *Index*.

LEMURES, in antiquity, spirits or hobgoblins; restless ghosts of departed persons, who return to terrify and torment the living.

These are the same with *larvæ*, which the ancients imagined to wander round the world, to frighten good people, and plague the bad. For which reason at Rome they had *lemuria* or feasts instituted to appease the manes of the defunct. See LARES.

Apuleius explains the ancient notion of manes thus: the souls of men released from the bands of the body, and freed from performing their bodily functions, become a kind of demons or genii, formerly called *lemures*. Of these *lemures*, those that were kind to their families were called *lares familiares*; but those who, for their crimes, were condemned to wander continually, without meeting with any place of rest, and terrified good men, and hurt the bad, are vulgarly called *larvæ*.

An ancient commentator on Horace mentions, that the Romans wrote *lemures* for *remures*; which last word was formed from Remus, who was killed by his brother Romulus, and who returned to the earth to torment him.

But

Lemures || Lending-Houses.

But Apuleius observes, that in the ancient Latin tongue *lemures* signifies the soul of a man separated from the body by death.

LEMURIA, or LEMURALIA, a feast solemnized at Rome, on the 9th of May, to pacify the manes of the dead, or in honour of the lemures.—It was instituted by Romulus, to appease the ghost of his murdered brother Remus, which he thought was continually pursuing him to revenge the horrid crime.—The name lemuria is therefore supposed to be a corruption of Remuria, i. e. the feast of Remus. Sacrifices continued for three nights, the temples were shut up, and marriages were prohibited during the solemnity. A variety of whimsical ceremonies were performed, magical words made use of, and the ghosts desired to withdraw, without endeavouring to hurt or affright their friends above ground. The chief formalities were ablution, putting black beans into their months, and beating kettles and pans, to make the goblins keep their distance.

LENA, a great river of Siberia in Asia, which takes its rise in N. Lat. 50. 30. and E. Long. 124. 30. from Ferro. After traversing a large tract of country, it divides itself into five branches about Lat. 73°. Three of these run westward, and two eastward, by which it discharges itself into the Icy sea. Its three western mouths lie in 143° E. Long. from Ferro, but the eastern ones extend to 153. The current is everywhere slow, and its bed entirely free from rocks. The bottom is sandy, and the banks are in some places rocky and mountainous. Sixteen large rivers fall into the Lena during its course to the northern ocean.

LENÆA, a festival kept by the Greeks in honour of Bacchus, at which there was much feasting and Bacchanalian jollity, accompanied with poetical contentions, and the exhibition of tragedies. The poor goat was generally sacrificed on the occasion, and treated with various marks of cruelty and contempt, as being naturally fond of browsing on the vine shoots.

LENCICIA, a strong town of Poland, and capital of a palatinate of the same name, with a fort seated on a rock. The nobility of the province held their diet here. It stands in a morass on the banks of the river Bsura, in E. Long. 19. 17. N. Lat. 51. 52.

LENDING-HOUSES. That it should have once been conceived unlawful to exact interest for the loan of money will not appear surprising, when it is considered, that at an early period the occupations by which a man could support his family were neither so numerous nor productive as in modern times. As money, therefore, was at that time sought to remove immediate necessity, those who advanced it were influenced by benevolence and friendship. But on the extension of trade, arts, and manufactures, money lent produced much more than what was adequate to the borrower's daily support, and therefore the lender might reasonably expect from him some remuneration. To the lending of money upon interest, according to the earliest accounts we have, succeeded the practice of establishing funds for the relief of the needy, on condition that they could deposit any thing in value equal to double the sum borrowed, for which they were to pay no interest.

But as, on the one hand, the idea of exacting interest for the loan of money was odious to the members of the Popish church in general, and as, on the other, it appeared highly proper and even necessary, to pay interest for money to be employed in commerce, the pontiffs themselves at length allowed the lending-house to take a moderate interest; and in order not to alarm the prejudices of those to whom the measure was obnoxious, it was concealed under the name of being paid *pro indemnitate*,—the expression made use of in the papal bull. Lending-Houses, Lenfant.

It appears that lending-houses, which gave money on the receipt of pledges, at a certain interest, are by no means of recent date; for many of the houses of this nature, in Italy at least, were established in the 15th century, by Marcus Bononiensis, Michael à Carcano, Cherubinus Spoletanus, Antonius Vercellensis, Bernardinus Tomitano, and others.

The lending-house at Perugia, established by Barnabas Interamnensis, was inspected by Bernardinus in 1485, who augmented its capital, and in the same year established one at Assisi, which was confirmed by Pope Innocent, and visited and improved by its founder in the year 1487. He likewise established one at Mantua after formidable opposition being made to the measure, procuring for it the sanction of the pope, as Wadding informs us. The same person also founded lending-houses at Florence, Parma, Chieti, and Piacenza, in doing which he was sometimes well received, while at others he frequently met with the most formidable opposition. A house of this kind was established at Padua in the year 1491, and another at Ravenna, which were approved of and confirmed by Pope Alexander VI.

Long after the above period, lending-houses were established at Rome and Naples, that of the former city having taken place in 1539, and that of the latter probably in the following year. A lending-house was established in Nuremberg in Germany about 1618, the inhabitants having obtained from Italy the regulations of different houses, in order to select the best. In France, England, and the Netherlands, lending-houses were first known under the denomination of *Lombards*. Similar institutions were formed at Brussels in 1619; at Antwerp in 1620, and at Ghent in 1622.

Although such houses must be allowed to be of considerable utility under certain circumstances, especially when the interest is not allowed to be exorbitant, yet they were always odious in France; but one was established at Paris in 1626, in the reign of Louis XIII. which the managers next year were obliged to abandon. The *mont de pieté* at that city, which has sometimes had in possession 40 casks full of gold watches that were pledged, was established by royal authority in the year 1777, as we learn from the Tableau de Paris, published at Hamburg in 1781.—*Beckman's Hist. of Inventions.*

LENFANT, JAMES, a learned French writer, was born in 1661. After studying at Saumur, he went to Heidelberg, where he received imposition of hands for the ministry in 1684. He discharged the functions of this character with great reputation there, as chaplain to the electress dowager Palatine, and pastor in ordinary to the French church. The descent of the French into the Palatinate obliged our author to depart from Heidelberg in 1687. He went to Berlin, where the elector Frederic, afterwards king of Prussia, appointed him one of the ministers. There he continued 39 years, distinguishing himself by his writings.

He

Lenfant ‖ Lengthening.

He was preacher to the queen of Prussia, Charlotta Sophia; and after her death, to the late king of Prussia. In 1707 he took a journey to England and Holland, where he had the honour to preach before Queen Anne; and might have settled in London, with the title of *chaplain to her majesty*. In 1712 he went to Helmstadt, in 1715 to Leipsic, and in 1725 to Breslau, to search for rare books and MSS. It is not certain whether it was he that first formed the design of the *Bibliotheque Germanique*, which began in 1720; or whether it was suggested to him by one of the society of learned men, which took the name of *Anonymous*, and who ordinarily met at his house. He died in 1728. His principal works are, 1. The History of the Council of Constance, 2 vols 4to. 2. A History of the Council of Pisa, 2 vols 4to. 3. The New Testament, translated from the Greek into the French, with Notes by Beausobre and Lenfant, 2 vols 4to. 4. The History of Pope Joan, from Spanheim's Latin Dissertation. 5. Several pieces in the *Bibliotheque Choisie*, *La Republic des Lettres*, *La Bibliotheque Germanique*, &c.

LENGLET, NICHOLAS DU FRESNOY, L'ABBE', born at Beauvais in France, 1674, was a most fertile and useful French author on a variety of subjects, historical, geographical, political, and philosophical. The following deserve particular notice: 1. A Method of Studying History, with a Catalogue of the Principal Historians of every Age and Country, published in 1713: a work which established his reputation as an historical writer: it was translated into most of the modern languages, particularly our own, with considerable improvements, by Richard Rawlinson, LL. D, and F. R. S. and published at London in 1730, in 2 vols 8vo. 2. A Copious Abridgement of Universal History and Biography, in chronological order, under the title of *Tablettes Chronologiques;* which made its first appearance at Paris in 1744, in 2 vols small 8vo, and was universally admired by the literati in all parts of Europe. The author attended with great candour, as every writer ought, to well-founded judicious criticisms. In future editions he made several alterations and improvements, and from one of these, we believe, that of 1759, an English translation was made, and published at London in 1762, in 2 vols large 8vo. Du Fresnoy died in 1755: the Paris edition of 1759 was printed from the author's corrected copy; and the impression being sold off, another edition appeared in 1763, with considerable improvements by an unknown editor: to the biographical part a great number of names of respectable persons are added, not to be found in the former edition; and it has this superior advantage in the historical parts, that the general history is brought down to the year 1762. Du Fresnoy, however, has loaded his work with catalogues of saints, martyrs, councils, synods, heresies, schisms, and other ecclesiastical matters, fit only for the libraries of Popish convents and seminaries.

LENGTH, the extent of any thing material from end to end. In duration, it is applied to any space of time, whether long or short.

LENGTHENING, in ship carpentry, the operation of cutting a ship down across the middle, and adding a certain portion to her length. It is performed by sawing her planks asunder in different places of her length, on each side of the midship frame, to prevent her from being too much weakened in one place. The two ends are then drawn apart to a limited distance; which must be equal to the proposed addition of length. An intermediate piece of timber is next added to the keel, upon which a sufficient number of timbers are erected, to fill up the vacancy produced by the separation. The two parts of the kelson are afterwards united by an additional piece which is scored down upon the floor timbers, and as many beams as may be necessary are fixed across the ship in the new interval. Finally, The planks of the side are prolonged so as to unite with each other; and those of the ceiling refitted in the same manner; by which the whole process is completed.

Lengthening ‖ Lens.

LENOX or DUNBARTONSHIRE, a county of Scotland. See DUNBARTONSHIRE. Among the rivers of this county is the Blane, which, though itself an inconsiderable stream, has been rendered famous by the birth of George Buchanan, the celebrated Latin poet and historian. The same part of the country gave birth to the great mathematician and naturalist, Baron Napier of Merchiston, inventor of the logarithms. The title of *Lenox*, with the property of great part of the shire, was heretofore vested in a branch of the royal family of Stuart, with which it was reunited in the person of King James VI. whose father, Henry Lord Darnley, was son of the duke of Lenox. This prince conferred the title upon his kinsman Esme Stuart, son of John Lord d'Aubigny in France; but his race failing at the death of Charles duke of Lenox and Richmond, and the estate devolving to the crown, King Charles II. conferred both titles on his own natural son by the duchess of Portsmouth; and they are still enjoyed by his posterity. The people of Lenoxshire are chiefly Lowlanders, though in some parts of it divine service is performed in the Erse language.—The most numerous clans in this district are the Macfarlanes, the Colquhouns, and the Buchanans.

LENS, a piece of glass, or any other transparent substance, the surfaces of which are so formed, that the rays of light, by passing through it, are made to change their direction, either tending to meet in a point beyond the lens, or made to become parallel after converging or diverging; or lastly, proceeding as if they had issued from a point before they fell upon the lens. Some lenses are convex, or thicker in the middle; some concave, or thinner in the middle; some plano-convex, or plano-concave; that is, with one side flat, and the other convex or concave; and some are called *meniscuses*, or convex on one side and concave on the other. See DIOPTRICS.

Lenses are of two kinds, either blown or ground.

Blown LENSES, are only made use of in the single microscope, and the common method of making them has been to draw out a fine thread of the soft white glass called *crystal*, and to convert the end of it into a spherule by melting it at the flame of a candle. Mr Nicholson observes that window glass affords excellent spherules. A thin piece from the edge of a pane of glass one-tenth of an inch broad was held perpendicularly, and the flame of a candle was directed against it by means of the blow-pipe, when it became soft, and the lower end descended by its own weight to the distance of about two feet, where it remained suspended

by

Lens, Lent.

by a thin thread of glass about $\frac{1}{500}$ of an inch in diameter. A part of this thread was applied endwise to the lower blue part of the flame of the candle without the blow-pipe, when the end became instantly white-hot, and formed a globule, which was gradually thrust towards the flame till it became sufficiently large. A number of these were made and examined, by viewing their focal images with a deep magnifier, when they appeared bright, perfect, and round.

Ground LENSES are such as are rubbed into the shape required, and polished. Several shapes have been proposed, but the spherical has been found to be the most practically useful. Yet by various modes of grinding, the artificer can produce no more than an approximation to a figure exactly spherical, and men of letters or others must depend entirely on the care and integrity of workmen for the sphericity of the lenses of their telescopes. Mr Jenkins has described a machine, which being so contrived as to turn a sphere at one and the same time on two axes, cutting each other at right angles, will produce the segment of a true sphere, merely by turning round the wheels, and that without any care or skill in the workmen. See MECHANICS.

LENT, a solemn time of fasting in the Christian church, observed as a time of humiliation before Easter, the great festival of our Saviour's resurrection.

Those of the Romish church, and some of the Protestant communion, maintain, that it was always a fast of 40 days, and, as such, of apostolical institution. Others think it was only of ecclesiastical institution, and that it was variously observed in different churches, and grew by degrees from a fast of 40 hours to a fast of 40 days. This is the sentiment of Morton, Bishop Taylor, Du Moulin, Daillé, and others.

Anciently the manner of observing lent among those who were piously disposed, was to abstain from food till evening: their only refreshment was a supper; and then it was indifferent whether it was flesh or any other food, provided it was used with sobriety and moderation.

Lent was thought the proper time for exercising, more abundantly, every species of charity. Thus what they spared from their own bodies by abridging them of a meal, was usually given to the poor; they employed their vacant hours in visiting the sick and those that were in prison, in entertaining strangers, and reconciling differences. The imperial laws forbade all prosecution of men in criminal actions, that might bring them to corporeal punishment and torture, during the whole season. This was a time of more than ordinary strictness and devotion, and therefore in many of the great churches they had religious assemblies for prayer and preaching every day. All public games and stage plays were prohibited at this season; as also the celebration of all festivals, birth days, and marriages, as unsuitable to the present occasion.

The Christians of the Greek church observe four lents: the first commences on the 15th of November; the second is the same with our lent; the third begins the week after Whitsuntide, and continues till the festival of St Peter and St Paul; and the fourth commences on the first of August, and lasts no longer than till the 15th. These lents are observed with great strictness and austerity; but on Saturdays and Sundays they indulge themselves in drinking wine and using oil, which were prohibited on other days.

Lent ‖ Leo.

LENTIL. See ERVUM, BOTANY *Index*.

LENTINI. See LEONTINI.

LENTISCUS. See PISTACIA, BOTANY *Index*.

LEO. See FELIS, MAMMALIA *Index*.

LEO, in *Astronomy*, the fifth of the 12 signs of the zodiac. The stars in the constellation *Leo*, in Ptolemy's catalogue are 27, besides the unformed, which are 8; in Tycho's 20; in the Britannic catalogue 95.

LEO X. *Pope*, second son of Lorenzo de Medici, was born at Florence in December 1475, and received the baptismal name of *Giovanni*, or John. He received the tonsure at seven years, of age, his father having desstined him for the church. Being even at that early period declared capable of clerical preferment, he obtained two rich abbacies through the interest of his father with Louis XI. of France, and Pope Sixtus IV. At a very early period he held no fewer than 29 church preferments, a strong proof of the most scandalous corruption, as well as of the interest which his family enjoyed. In the time of Innocent VIII. he was promoted to the high rank of cardinal, when no more than 13 years of age, which took place in the year 1488. If the great influence of his father was unquestionably censurable in promoting the rapid and illegal advancement of his son, it is but justice to admit that he employed all his efforts to qualify him for such premature dignity. The learned Angelo Poliziano had the care of his early education, which was greatly accelerated by the uncommon gravity and solidity of his disposition. He was invested with the purple in 1492, going afterwards to reside at Rome as one of the sacred college. Having opposed the election of Alexander VI. to the pontificate, he found it prudent to withdraw to Florence, in which place he acquired much personal esteem; but on the invasion of Italy by Charles VIII. of France, he was involved in the expulsion of his brother Piero, and took refuge at Bologna. In 1499 he made a tour through the states of Venice, Germany, and France, going afterwards to Rome, where he lived safe and respected during the pontificate of Alexander, in consequence of his prudent behaviour.

In 1505, when 30 years of age, he began to take an active part in public affairs, and Julius II. appointed him governor of Perugia. As he adhered with unshaken resolution to the interest of the pope, he acquired the confidence of his holiness, in so eminent a manner, that he was entrusted with the direction of the papal army against France; and if he was not competent to conduct the military operations, he was of singular service in maintaining good order in the camp. He was taken prisoner at the bloody battle of Ravenna in 1512, and conveyed to Milan, where the dignity of his sacred office procured him respect. From this place he found means to escape, and returned to Bologna, assuming the government of the district in the capacity of the pope's legate.

At the election of a new pope in the room of Julius II. he was chosen to the pontificate, being then only 38 years of age. Whatever might be the leading motives

of

Leo. of the conclave for electing so young a pope, it is agreed on all hands, that it was not effected by those corrupt practices too common on such occasions; and he ascended the throne under the name of Leo X. with greater proofs of affection on the part of both Italians and foreigners than the greater part of his predecessors. He displayed his love of literature by the nomination of Bembo and Sadoleti to the office of papal secretaries.

One of his first attempts was to free Italy from the dominion of foreign powers: and having taken into pay a large body of Swiss, he gained a victory over the French in the reign of Louis XII. at the bloody battle of Novara, by which means they were driven from Italy; and the king of France having incurred ecclesiastical censure, submitted in form, and received absolution. Having thus secured internal tranquillity, he turned his attention to the encouragement of literature and men of genius. He affected the restoration of the Roman university to its former splendour by means of new grants and privileges, and by filling the professorships with distinguished characters from every quarter. A Greek press was established in the city, and all Europe was informed that persons bringing ancient manuscripts to the pope would be liberally rewarded, besides having them printed at the expence of the holy see. He also promoted the study of oriental literature, and he had the honour of founding the first professorship of the Syriac and Chaldaic languages at Bologna.

On the death of Louis XII. of France, and the accession of Francis I. to the throne, it soon became apparent that a new war was inevitable in the north of Italy. Leo endeavoured to remain neuter, but without success, in consequence of which he joined in a league with the emperor, the king of Arragon, the states of Milan and Florence, and the Swiss cantons, against the French king and the state of Venice. But he soon found it expedient to desert his allies, and form a union with Francis, which took place in 1515, at an interview between the two sovereigns.

In 1517, the duke of Urbino, whom he had expelled, in order to make way for his nephew Lorenzo, collected an army, and by rapid movements regained his capital and dominions, which chagrined Leo to such a degree, that he endeavoured to raise all the Christian princes against him. He raised an army under the command of his nephew, and the duke was finally compelled to relinquish his dominions upon honourable terms. In this year the life of Leo was in danger, and all his moments embittered by a conspiracy against him in his own court. Petrucci, the chief author of it, had formed a plan of destroying the pope by poison; but having failed in this attempt, he withdrew from Rome, still, however, carrying on a correspondence with his secretary. Some of his letters being intercepted, he was arrested on his way to Rome, and committed to prison. He was strangled, and his accomplices were put to death with the severest tortures. To shelter himself from danger, whether real or imaginary, Leo created 31 new cardinals in one day, chiefly from among his own relations, and some of them deserving of such dignity by their virtues and talents.

In the reign of this pontiff began the reformation of religion under the celebrated Martin Luther, who inflicted such a wound on the Romish church as will never be healed. Leo's taste for luxurious magnificence and every object of expence having exhausted his coffers, he took from the church the profits arising from the sale of indulgences for his own private emolument. These wares were extolled in language which shocked the pious and thinking part of mankind, and facilitated the progress of the reformation in the hands of such a man as Luther, whom nothing could intimidate. This great man, during his opposition to the extravagance of Leo in the sale of indulgences, was still willing to be reconciled; but as he insisted on making an unqualified appeal to the language of Scripture, and Leo would admit of nothing but an unqualified appeal to the decrees of the church, it is obvious that a reconciliation was impossible. The works of Luther were burnt in different places by Leo's command, and Luther in his turn made a solemn and public conflagration of the papal decrees and constitutions, and even of the bull itself. It was this pontiff who conferred on Henry VII. of England the title of defender of the faith, to which he appears to have had very little claim.

The private hours of Leo, it is said, were devoted to indolence, or to amusements; and that some of them were unworthy of his clerical dignity. Many enormities are ascribed to him which we shall pass over in silence, as they do not appear to have such incontestable evidence as to warrant the belief of them. He never lost sight of his favourite idea of expelling the French from Italy. The Swiss who had been in the service of France were induced to desert, the allies crossed the Adda, and entered Milan without opposition. They next entered the territories of the duke of Ferrara who had espoused the cause of France. Many of his strong places were taken, and siege was about to be laid to his capital, when it was prevented by the indisposition of the pope, which in the space of eight days terminated in his death, on December 1. 1521, in the 46th year of his age, and the 9th of his pontificate. It was supposed by some that he died by poison, but we have seen no sufficient proof for such a conclusion. Without attempting to draw the moral and political character of this celebrated pontiff, about which mankind have been so much divided, it may be fairly asserted that he claims the gratitude of posterity for the ample encouragement which he afforded to men of science and literature, and the eagerness with which he promoted the study of the fine arts, qualities sufficient to veil all the failings or faults which can justly be charged to his account. This character of Leo has been finely celebrated by Pope in the following verses.

Leo.

But see! each muse, in Leo's golden days,
Starts from her trance, and trims her wither'd bays;
Rome's ancient Genius, o'er its ruins spread,
Shakes off the dust, and rears his rev'rend head.
Then Sculpture and her sister Arts revive:
Stones leap to form, and rocks begin to live;
With sweeter notes each rising temple rung;
A Raphael painted, and a Vida sung.

Leo, *St*, a small but strong town of Italy, in the

Leo ‖ Leonard.

territory of the church, and duchy of Urbino, with a bishop's see. It is seated on a mountain, near the river Marrechia, in E. Long. 12. 25. N. Lat. 43. 57.

LEOMINSTER, a town of Herefordshire, in England, seated on the river Lug, which waters the north and east sides of the town, and over which there are several bridges. It is a large, handsome, populous borough; and is a great thoroughfare betwixt South Wales and London, from which last it is distant 113 measured miles. In King John's reign it was burnt, but soon rebuilt. It was incorporated by Queen Mary, and is governed by a high steward, bailiff, recorder, &c. The best flax is said to grow here, and it has been equally noted for the best wheat, barley, and the finest bread. The inhabitants have a considerable trade in wool, gloves, leather, hat-making, &c. and there are several rivers about the town on which they have machinery. Near its church are some remains of its priory; and on a neighbouring hill are the ruins of a palace, called to this day Comfort Castle. It sends two members to parliament; and had 3238 inhabitants in 1811. W. Long. 2. 36. N. Lat. 52. 20.

LEON, an ancient town of France, in Lower Bretagne, and capital of the Leonnois, with a bishop's see. It is seated near the sea, in W. Long. 3. 55. N. Lat. 48. 41.

LEON, a province of Spain, with the title of a kingdom; bounded on the north by Asturias; on the west by Galicia and Portugal; and on the south by Estremadura and Castile, which also bounds it on the east. It is about 125 miles in length, and 100 in breadth; and is divided into two almost equal parts by the river Duero, or Douro. It produces all the necessaries of life, and Leon is the capital town.

LEON, an ancient and large episcopal town of Spain, and capital of the kingdom of that name, built by the Romans in the time of Galba. It has the finest cathedral church in all Spain. It was formerly more rich and populous than at present, and had the honour of being the capital of the first Christian kingdom in Spain. It is seated between two sources of the river Esta, in W. Long. 5. 37. N. Lat. 42. 36.

LEON, *Peter Cieca De*, author of the history of Peru. He left Spain, his native country, at 13 years of age, in order to go into America, where he resided 17 years; and observed so many remarkable things, that he resolved to commit them to writing. The first part of his history was printed at Seville in 1553. He began it in 1541, and ended it in 1550. He was at Lima, the capital of the kingdom of Peru, when he gave the finishing stroke to it, and was then 32 years of age.

LEON de Nicaragua, a town of North America, in New Spain, and in the province of Nicaragua; the residence of the governor, and a bishop's see. It consists of about 1000 houses, and has several monasteries and nunneries belonging to it. At one end of the town is a lake which ebbs and flows like the sea. The town is seated at the foot of a volcano, which renders it subject to earthquakes. It was taken by the bucaniers in 1685, in sight of a Spanish army who were six to one. W. Long. 86. 56. N. Lat. 12. 25.

LEONARD DE NOBLET, *St*, an ancient town of France in the province of Guienne and territory of Limosin, with a considerable manufactory of cloth and paper. It is seated on the river Vienne, in E. Long. 1. 35. N. Lat. 45. 50.

Leonard ‖ Leontini.

LEONARDO DA VINCI. See VINCI.

LEONCLAVIUS, JOHN, one of the most learned men of the 16th century, was a native of Westphalia. He travelled into Turkey, and collected excellent materials for composing the Ottoman History; and it is to him the public is indebted for the best account we have of that empire. To his knowledge in the learned languages he had added that of the civil law; whereby he was very well qualified to translate the *Basilica*. His other versions were esteemed, though critics pretend to have found many faults in them. He died in 1593, aged 60.

LEONIDAS I. king of Sparta, a renowned warrior, slain in defending the straits of Thermopylæ against Xerxes, 480 B. C. See SPARTA.

LEONINE, in poetry, is applied to a kind of verses which rhime at every hemistic, the middle always chiming to the end. Of which kind we find several ancient hymns, epigrams, prophecies, &c.—For instance, Muretus speaking of the poetry of Lorenzo Gambara of Bresse, says,

*Brixia, vestra*tis *merdosa volumina va*tis,
*Non sunt nostra*tes *tergere digna na*tis.

The following one is from the school of Salernum:

Ut vites pœnam *de potibus incipe* cœnam.

The origin of the word is somewhat obscure: Pasquier derives it from one Leoninus or Leonius, who excelled in this way; and dedicated several pieces to Pope Alexander III.; others derive it from Pope Leo; and others from the beast called *lion*, by reason it is the loftiest of all verses.

LEONTICA, feasts or sacrifices celebrated among the ancients in honour of the sun.—They were called *Leontica*, and the priests who officiated at them *Leones*, because they represented the sun under the figure of a lion radiant bearing a tiara, and griping in his two fore paws the horns of a bull, who struggled with him in vain to disengage himself.

The critics are extremely divided about this feast. Some will have it anniversary, and to have made its return not in a solar but in a lunar year; but others hold its return more frequent, and give instances where the period was not above two hundred and twenty days.

The ceremony was sometimes also called *Mithriaca*, Mithras being the name of the sun among the ancient Persians. There was always a man sacrificed at these feasts, till the time of Hadrian, who prohibited it by a law. Commodus introduced the custom afresh, after whose time it was again exploded.

LEONTICE, LION'S LEAF, a genus of plants belonging to the hexandria class; and in the natural method ranking under the 24th order, *Corydales*. See BOTANY *Index*.

LEONTINI, or LEONTIUM, in *Ancient Geography*, a town of Sicily on the south side of the river Terias, 20 miles north-west of Syracuse. The territory, called *Campi Leontini*, was extremely fertile (Cicero): these were the *Campi Læstrigonii* anciently so called; the seat of the Læstrigons, according to the commentators on the poets. The name *Leontini* is from *Leo*, the impression

Leontini ‖ Leprosy.

pression on their coin being a lion. Now called *Lentini*, a town situated in the Val di Noto, in the south-east of Sicily.

LEONTIUM, one of the twelve towns of Achaia, whether on, or more distant from, the bay of Corinth, is uncertain. *Leontium* of Sicily. See LEONTINI.

LEONTODON, DANDELION, a genus of plants belonging to the syngenesia class, and in the natural method ranking under the 49th order, *Compositæ*. See BOTANY *Index*.

LEONURUS, LION'S-TAIL, a genus of plants belonging to the didynamia class, and in the natural method ranking under the 42d order, *Verticillatæ*. See BOTANY *Index*.

LEOPARD. See FELIS, MAMMALIA *Index*.

Leopard's Bane. See DORONICUM, BOTANY *Index*.

LEPANTO, a strong and considerable town of Turkey in Europe, and in Livadia, with an archbishop's see and a strong fort. It is built on the top of a mountain, in form of a sugar-loaf; and is divided into four towns, each surrounded by walls, and commanded by a castle on the top of the mountain. The harbour is very small, and may be shut up by a chain, the entrance being but 50 feet wide. It was taken from the Turks by the Venetians in 1678; but was afterwards evacuated, and the castle demolished in 1699, in consequence of the treaty of Carlowitz. It was near this town that Don John of Austria obtained the famous victory over the Turkish fleet in 1571. The produce of the adjacent country is wine, oil, corn, and rice. Turkey leather is also manufactured here. The wine would be exceeding good if they did not pitch their vessels on the inside, but this renders the taste very disagreeable to those who are not accustomed to it. The Turks have six or seven mosques here, and the Greeks two churches. It is seated on a gulf of the same name, anciently called the gulf of Corinth. E. Long. 22. 11. N. Lat. 38. 34.

LEPAS, the ACORN, a genus of shell-fish belonging to the order of vermes testacea. See CONCHOLOGY *Index*.

LEPIDIUM, DITTANDER, or *Pepperwort*, a genus of plants belonging to the tetradynamia class, and in the natural method ranking under the 39th order, *Siliquosæ*. See BOTANY *Index*.

LEPIDOPTERA, in *Zoology*, an order of insects, with four wings, which are covered with imbricated scales. See ENTOMOLOGY.

LEPISMA, a genus of insects belonging to the order of *Aptera*. See ENTOMOLOGY *Index*.

LEPROSY, a foul cutaneous disease, appearing in dry, white, thin scurfy scabs, either on the whole body, or only some parts of it, and usually attended with a violent itching and other pains. See MEDICINE *Index*.

The leprosy is of various kinds, but the Jews were particularly subject to that called *Elephantiasis*. Hence the Jewish law excluded lepers from communion with mankind, banishing them into the country or uninhabited places, without excepting even kings. When a leper was cleansed, he came to the city gate, and was there examined by the priests; after this he took two live birds to the temple, and fastened one of them to a wisp of cedar and hyssop tied together with a scarlet ribbon; the second bird was killed by the leper, and the blood of it received into a vessel of water; with this water the priest sprinkled the leper, dipping the wisp and the live bird into it: this done, the live bird was let go; and the leper, having undergone this ceremony, was again admitted into society and to the use of things sacred. See Levit. xiii. 46, 47. and Levit. xiv. 1, 2, &c.

Leprosy ‖ Lerna.

LEPTOCEPHALUS, a genus of fishes, belonging to the order of *Apodes*. See ICHTHYOLOGY *Index*.

LEPTOPOLYGINGLIMI, in *Natural History*, a genus of fossil shells, distinguished by a number of minute teeth at the hinge. Specimens of these are found at Harwich cliff, and in the marl pits of Sussex.

LEPTUM, in antiquity, a small piece of money, which, according to some, was only the eighth part of an obolus; but others will have it to be a silver or brass drachm.

LEPTURA, a genus of insects belonging to the order of coleoptera. See ENTOMOLOGY *Index*.

LEPUS, a genus of quadrupeds belonging to the order of glires. See MAMMALIA *Index*.

LEPUS, the hare, in *Astronomy*, a constellation of the southern hemisphere; whose stars in Ptolemy's catalogue are 12; in that of Tycho's 13; and in the Britannic 19.

LERCHEA, a genus of plants belonging to the monadelphia class. See BOTANY *Index*.

LERIA, or LEIRIA, a strong town of Portugal, in Estremadura, with a castle and bishop's see. It contains about 3500 inhabitants, and was formerly the residence of the kings of Portugal. W. Long. 8. 34. N. Lat. 39. 40.

LERIDA, an ancient, strong, and large town of Spain, in Catalonia, with a bishop's see, an university, and a strong castle. This place declared for King Charles after the reduction of Barcelona in 1705; but it was retaken by the duke of Orleans in 1707, after the battle of Almanza. It is seated on a hill near the river Segra, and in a fertile soil, in E. Long. 0. 25. N. Lat. 41. 31.

LERINA, or PLANASIA, in *Ancient Geography*, one of the two small islands over against Antipolis, called also *Lerinas* and *Lirinus*. Now St Honorat, on the coast of Provence, scarce two leagues to the south of Antibes.

LERINS, the name of two islands in the Mediterranean sea, lying on the coast of Provence in France, five miles from Antibes; that near the coast, called *St Margaret*, is guarded by invalids, state prisoners being sent here. It was taken by the English in 1746, but Marshal Belleisle retook it in 1747. The other is called *St Honorat*; and it is less than the former, but has a Benedictine abbey.

LERMA, a town of Spain in Old Castile, seated on the river Arlanza, with the title of a *duchy*. W. Long. 3. 5. N. Lat. 42. 2.

LERNA, in *Ancient Geography*, not far from Argos, on the confines of Laconia; supposed to be a town of Laconia, but on the borders of Argolis; the position Pausanias allots to it, near Temenium, on the sea; without adding whether it is a town, river, or lake. According to Strabo, it is a lake, situated between the territories of Argos and Mycene, in contradiction to Pausanias. If there was a town of this name, it

Lerna || Lesbos.

seems to have stood towards the sea, but the lake to have been more inland. Mela calls it a well known town on the Sinus Argolicus; and Statius by Lerna seems to mean something more than a lake. This, however, is the lake in which, as Strabo says, was the fabled Hydra of Hercules: therefore called *Lerna Anguifera* (Statius). The lake runs in a river or stream to the sea, and perhaps arises from a river (Virgil). From the lake the proverb, *Lerna Malorum*, took its rise; because, according to Strabo, religious purgations were performed in it; or, according to Hesychius, because the Argives threw all their filth into it.

LERNEA, a genus of animals of the class of vermes. See HELMINTHOLOGY *Index*.

LERNICA, formerly a large city in the island of Cyprus, as appears from its ruins: but is now no more than a large village, seated on the southern coast of that island, where there is a good road, and a small fort for its defence.

LERO, in *Ancient Geography*, one of the two small islands, in the Mediterranean, opposite to Antipolis, and half a mile distant from it to the south. Now *St Margarita*, over against Antibes, on the coast of Provence.

LERO, or *Leros*, an island of the Archipelago, and one of the Sporades; remarkable, according to some authors, for the birth of Patroclus. E. Long. 26. 15. N. Lat. 37. 0.

LE ROY LE VEUT, the king's assent to public bills. See the articles BILL, STATUTE, and PARLIAMENT.

LERWICK, a town on the Mainland of Shetland, and the seat of the courts of that stewartry. It is situated on the spacious harbour called *Lerwick* or *Bressay sound*, and derives its only importance from the courts of law, and the vessels employed in the whale-fishery, which make a rendezvous of the bay. It contained 1949 inhabitants in 1811. The parish extends about six miles along the sea-coast, and is in no place more than a mile in breadth. On the north and east it is bounded by the sea, which separates it from Bressay island. The surface of the parish is rocky and mountainous, but there are a number of fine arable fields on the sea-coast, the soil of which is light and sandy, but fertile and productive. Near the north end of the town there is a small fortification, called *Fort Charlotte*, which commands the north entry to Bressay sound, and is garrisoned by a detachment of invalids. It was completely repaired by order of government in the year 1781. There are several large cannon for commanding the harbour and protecting the town. There is a straw-plaiting manufactory at Lerwick, furnishing upwards of 50 girls with employment, who have one penny per yard for their work: 20 yards of which can be made by some of them in the course of a day. It is carried on by a company in London. There are two chalybeate springs in the vicinity of the town, but neither of them is highly impregnated, although the one is stronger than the other. W. Long. 1. 30. N. Lat. 60. 20.

LESBOS, a large island in the Ægean sea, on the coast of Ætolia, about 168 miles in circumference. It has been severally called *Pelasgia*, from the Pelasgi, by whom it was first peopled; *Macaria*, from Macareus who settled in it; and *Lesbos*, from the son-in-law and successor of Macareus, who bore the same name. The chief towns of Lemnos were Methymna and Mitylene. It was originally governed by kings, but they were afterwards subjected to the neighbouring powers. The wine which it produced was greatly esteemed by the ancients, and still is in the same repute with the moderns. The Lesbians were so debauched and dissipated, that the epithet of *Lesbian* was often used to signify debauchery and extravagance. Lesbos has given birth to many illustrious persons, such as Arion, Terpander, Sappho, &c. See MITYLENE.

Lesbos || Lesguis.

LESCAILLE, JAMES, a celebrated Dutch poet and printer, was born at Geneva. He and his daughter Catherine Lescaille have excelled all the Dutch poets. That lady, who was surnamed the *Sappho of Holland*, and the *tenth Muse*, died in 1711. A collection of her poems has been printed, in which are the tragedies of Genseric, Wenceslaus, Herod and Mariamne, Hercules and Dejanira, Nicomedes, Ariadne, Cassandra, &c. James Lescaille her father deserved the poet's crown, with which the emperor Leopold honoured him in the year 1603: he died about the year 1677, aged 67.

LESCAR, a town of France, in the department of the Lower Pyrenees, with a bishop's see; seated on a hill, in W. Long. 0. 30. N. 43. 23.

LESGUIS, a people of Asia, whose country is indifferently called by the Georgians *Lesguistan* and *Daghestan*. It is bounded to the south and east by Persia and the Caspian; to the south-west and west by Georgia, the Ossi, and Kisti; and to the north by the Kisti and Tartar tribes. It is divided into a variety of districts, generally independent, and governed by chiefs elected by the people. Guldenstaedt has remarked, in the Lesgnis language, eight different dialects, and has classed their tribes in conformity to this observation.

The first dialect comprehends 15 tribes, which are as follow: 1. Avar, in Georgia Chunsagh. The chief of this district, commonly called *Avar Khan*, is the most powerful prince of Lesguistan, and resides at Kabuda, on the river Kasernk. The village of Avar is, in the dialect of Andi, called *Harbul*. 2. Kaseruk, in the high mountains, extending along a branch of the Koisu, called *Karak*. This district is dependant on the khan of the Kast Kumychs. 3. Idatle, on the Koisu, joining on the Andi; subject to the Avar Khan. 4. Mukratle, situated on the Karak, and subject to the Avar Khan. 5. Onsekul, subject to the same, and situated on the Koisu. 6. Karakhle, upon the Karak, below Kaseruk, subject to the same. 7. Ghumbet, on the river Ghumbet, that joins the Koisu, subject to the chief of the Coumyks. 8. Arakan; and, 9. Burtuma, on the Koisu. 10. Antsugh, on the Samura, subject to Georgia. 11. Tebel, on the same river, independent. 12. Tamurgi, or Tumural, on the same river. 13. Akhti; and, 14. Rutai, on the same. 15. Dshar, in a valley that runs from the Alazan to the Samura. It was formerly subject to Georgia, but is now independent. In this district are seen remains of the old wall that begins at Derbent, and probably terminates at the Alazan.—The inhabitants of Derbent believe that their town was built by Alexander, and that this wall formerly extended as far as the Black sea. It is, however,

Lesguis. ever, probable, from many inscriptions in old Turkish, Persian, Arabic, and Rufish characters, that the wall, and the aqueducts with their various subterraneous passages, many of which are now filled up, are of high antiquity. This town suffered greatly during its siege by Sultan Amurath, who entirely destroyed the lower quarter, then inhabited by Greeks. It was again taken by Schah Abbas. (Gaerber). This town is the old Pylæ Caspiæ.

The second dialect is spoken in the two following districts: 1. Dido, or Didonli, about the source of the Samura. This district is rich in mines; a ridge of uninhabited mountains divides it from Caket. 2. Unso, on the small rivulets that join the Samura. These two districts, containing together about 1000 families, were formerly subject to Georgia, but are now independent.

The third dialect is that of Kabutsh, which lies on the Samura rivulets, east of Dido, and north of Caket.

The fourth dialect is that of Andi, situated on a rivulet that runs into the Koisu. Some of its villages are subject to the Avar Khan, but the greater part to the khan of Axai. The whole consists of about 800 families.

The fifth dialect is common to four districts, namely, 1. Akusha, on the Koisu, subject to the Usmei, or khan of the Caitaks, and Kara Caitaks, containing about 1000 families. The following custom is attributed by Colonel Gaerber to the subjects of this prince: "Whenever the Usmei has a son, he is carried round from village to village, and alternately suckled by every woman who has a child at her breast until he is weaned. This custom, by establishing a kind of brotherhood between the prince and his subjects, singularly endears them to each other." 2. Balkar. 3. Zudakara, or Zudakh, down the Koisu, subject to the Usmei. 4. Kubesha, near the Koisu. Colonel Gaerber, who wrote an account of these countries in 1728, gives the following description of this very curious place: "Kubesha is a large strong town, situated on a hill between high mountains. Its inhabitants call themselves Franki (Franks, a name common in the east to all Europeans), and relate, that their ancestors were brought hither by some accident, the particulars of which are now forgotten. The common conjecture is, that they were mariners cast away upon the coast; but those who pretend to be better versed in their history, tell the story this way:—The Greeks and Genoese, say they, carried on, during several centuries, a considerable trade, not only on the Black sea, but likewise on the Caspian, and were certainly acquainted with the mines contained in these mountains, from which they drew by their trade with the inhabitants great quantities of silver, copper, and other metals. In order to work these upon the spot, they sent hither a number of workmen to establish manufactures, and instruct the inhabitants. The subsequent invasions of the Arabs, Turks, and Monguls, during which the mines were filled up, and the manufactures abandoned, prevented the strangers from effecting their return, so that they continued here, and erected themselves into a republic. What renders this account the more probable is, that they are still excellent artists, and make very good fire arms, as well rifled as plain; sabres, coats of mail, and several articles in gold and silver, for exportation. They have likewise, for their own defence, small copper cannons, of three pounds calibre, cast by themselves. They coin Turkish and Persian silver money, and even rubles, which readily pass current, because they are of the full weight and value. In their valleys they have pasture and arable lands, as well as gardens; but they purchase the greater part of their corn, trusting chiefly for support to the sale of their manufactures, which are much admired in Persia, Turkey, and the Crimea. They are generally in good circumstances, are a quiet inoffensive people, but high spirited, and independent. Their town is considered as a neutral spot, where the neighbouring princes can deposite their treasures with safety. They elect yearly twelve magistrates, to whom they pay the most unlimited obedience; and as all the inhabitants are on a footing of perfect equality, each individual is sure to have in his turn a share in the government. In the year 1725, their magistrates, as well as the Usmei, acknowledged the sovereignty of Russia, but without paying any tribute." 5. Zudakara, or Zadakh, down the Koisu, subject to the Usmei. It contains about 2000 families. Lesguis, Leskard.

The sixth dialect belongs to the districts on the eastern slope of Caucasus, between Tarku and Derbent, which are, 1. Caitak; and, 2. Tabasseran, or Kara Caitak, both subject to the Usmei.

The seventh dialect is that of Kasi-Coumyk, on a branch of the Koisu, near Zudakara. This tribe has a khan, whose authority is recognized by some neighbouring districts.

The eighth dialect is that of Kuraele, belonging to the khan of Cuban.

Besides these, there are some other Lesguis tribes, whose dialects Mr Guldenstaedt was unable to procure. From a comparison of those which he has obtained, it appears that the language of the Lesguis has no kind of affinity with any other known language, excepting only the Samoyede, to which it has a remote resemblance.

This people is probably descended from the tribes of mountaineers, known to ancient geographers under the name of *Lesgæ*, or *Ligyes*. The strength of their country, which is a region of mountains whose passes are known only to themselves, has probably at all times secured them from foreign invasion; but as the same cause must have divided them into a number of tribes, independent of each other, and perhaps always distinguished by different dialects, it is not easy to imagine any common cause of union which can ever have assembled the whole nation, and have led them to undertake very remote conquests. Their history, therefore, were it known, would probably be very uninteresting to us. They subsist by raising cattle, and by predatory expeditions into the countries of their more wealthy neighbours. During the troubles in Persia, towards the beginning of this century, they repeatedly sacked the towns of Shamachie and Ardebil, and ravaged the neighbouring districts; and the present wretched state of Georgia and of part of Armenia, is owing to the frequency of their incursions. In their persons and dress, and in their general habits of life, as far as these are known to us, they greatly resemble the Circassians.

LESKARD, a town in Cornwall, seated in a plain, is

Leskard, Leslie.

is a corporation, and sends two members to parliament. It had formerly a castle, now in ruins. It is one of the largest and best built towns in Cornwall, with the greatest market. It was first incorporated by Edward earl of Cornwall, afterwards by King John's son, Richard king of the Romans, and had privileges from Edward the Black Prince. Queen Elizabeth granted it a charter; by which it was to have a mayor and burgesses, who should have a perpetual succession, purchase lands, &c. Here is a handsome town hall built on stone pillars, with a turret on it, and a noble clock with four dials, a large church, a meeting house, an eminent free school, and a curious conduit; and on the adjacent commons, which feed multitudes of sheep, there have been frequent horse races. Here is a great trade in all manufactures of leather; and some spinning, which is encouraged by the clothiers of Devonshire. On the hills of North Leskard, and in the way from hence to Launceston, are many mines of tin, which is cast at the blowing houses into blucks, that are sent hither to be coined. Population 1975 in 1811.

LESLIE, JOHN, bishop of Ross in Scotland, the son of Gavin Leslie an eminent lawyer, was born in the year 1526, and educated at the university of Aberdeen; of which diocese he was made official, when but a youth. He was soon after created doctor of civil and canon law; but being peculiarly addicted to the study of divinity, he took orders, and became parson of Une. When the Reformation began to spread in Scotland, and disputes about religion ran high, Dr Leslie, in 1560, distinguisbed himself at Edinburgh as a principal advocate for the Romish church, and was afterwards deputed by the chief nobility of that religion to condole with Queen Mary on the death of her husband the king of France, and to invite her to return to her native dominions. Accordingly, after a short residence with her majesty, they embarked together at Calais in 1561, and landed at Leith. She immediately made him one of her privy council, and a senator of the college of justice. In 1564, he was made abbot of Lindores; and on the death of Sinclair was promoted to the bishopric of Ross. These accumulated honours he wished not to enjoy in luxurious indolence. The influence derived from them, he exerted to the prosperity of his country. It is to him that Scotland is indebted for the publication of its laws, commonly called "The *black* acts of parliament," from the Saxon character in which they were printed. At his most earnest desire, the revision and collection of them were committed to the great officers of the crown. In 1568, Queen Mary having fled to England for refuge, and being there detained a prisoner, Queen Elizabeth appointed certain commissioners at York to examine into the cause of the dispute between Mary and her subjects. These commissioners were met by others from the Queen of Scots. The bishop of Ross was of the number, and pleaded the cause of his royal mistress with great energy, though without success; Elizabeth had no intentinn to release her. Mary, disappointed in her expectations from the conference at York, sent the bishop of Ross ambassador to Elizabeth, who paid little attention to his complaints. He then began to negociate a marriage between his royal mistress and the duke of Norfolk; which negociation, it is well known, proved fatal to the duke, and was the cause of Leslie's being sent to the Tower. In 1573 he was banished the kingdom, and retired to Holland. The two following years he spent in fruitless endeavours to engage the powers of Europe to espouse the cause of his queen. His last application was to the pope; but the power of the heretic Elizabeth had no less weight with his holiness than with the other Roman Catholic princes of Europe. Finding all his personal applications ineffectual, he had recourse to his pen in Queen Mary's vindication; but Elizabeth's *ultima ratio regum* was too potent for all his arguments. Bishop Leslie, during his exile, was made coadjutor to the archbishop of Rouen. He was at Brussels when he received the account of Queen Mary's execution; and immediately retired to the convent of Guirternberg near that city, where he died in the year 1596. It was during the long and unfortunate captivity of Mary, that he amused himself in wriing the History of Scotland, and his other works. The elegance and charms of literary occupations served to assuage the violence of his woes. His knowledge and judgment as an historian are equally to be commended. Where he acts as the transcriber of Boece, there may be distinguished, indeed, some of the inaccuracies of that writer. But, when he speaks in his own person, he has a manliness, a candour, and a moderation, which appear not always even in authors of the Protestant persuasion. His works are, 1. *Afflicti animi consolationes*, &c. composed for the consolation of the captive queen. 2. *De origine, moribus, et gestis Scotorum.* 3. *De titulo et jure serenissimæ Mariæ Scotorum reginæ, quo regni Angliæ successionem sibi juste vindicat.* 4. *Paræsis ad Anglos et Scotos.* 5. *De illust. fœminarum in republ. administranda*, &c. 6. *Oratio ad reginam Elizabetham pro libertate impetranda.* 7. *Paræsis ad nobilitatem populumque Scoticum.* 8. An account of his proceedings during his embassy in England frum 1568 to 1572, manuscript, Oxon. 9. Apology for the bishop of Ross, concerning the duke of Norfolk; manuscript, Oxon. 10. Several letters, manuscript.

Leslie.

LESLIE, *Charles*, a learned divine of Ireland, the time and place of whose birth is uncertain. He was educated at Inniskilling; and in 1664, was created fellow nf Trinity-college, Dublin, where he continued till he became A. M. At the decease of his father he came over to England, and entered himself in the Temple at London. The study of the law very soon disgusted him, and he turned all his attention to theology, being admitted into holy orders in 1680. In 1687, he was chosen chancellor of the church and diocese of Connor, at which time he made himself extremely unpopular by his determined opposition to the tenets of the church of Rome. He imbibed the absurd and pernicious doctrines of passive obedience and non-resistance, by which his judgment was so much biassed, that he refused to take the oath of allegiance to King William and Queen Mary, at the revolution.

He was a strenuous champinn for the cause of the nonjurors, in defence of which he published a work in 1692, being an answer to The State of Protestants in Ireland under the late King James's Government, written by Archbishnp King. He also wrote a paper called the Rehearsal, originally published once a-week, and afterwards twice, in a folio half-sheet, consisting of a dialogue on the affairs of the times. It lasted during

Leslie ‖ Lessines.

six or seven years. They were afterwards collected and published by an eminent writer, who observes that he pursues a thread of argument in them all, against the lawfulness of resistance in any case whatever, deriving the source of government wholly from God. He wrote against the Deists, Jews, Papists, and Socinians, all of which he collected together, and published in two volumes folio, with the exception of a very illiberal piece against the learned and pious Dr Tillotson.

The frequent visits which he paid to the courts of St Germains and Bar-le-Duc, made him obnoxious to the British government, which was increased by his "Hereditary Right of the Crown of England Asserted," of which he was the reputed author. He was sent to Bar-le-Duc by some gentlemen of eminence, to attempt to convert the son of James II. to the Protestant religion, who wished to see him settled on the throne. At Bar-le-Duc he was permitted to discharge the duties of the sacerdotal office, according to the forms of the church of England, where he endeavoured, but in vain, to convert the Pretender. It is the opinion of Lord Bolingbroke, that he was ill used by the Pretender, who not only refused to hear him himself, but sheltered the ignorance of his priests behind his authority, and prohibited all discourse concerning religion. At the close of the reign of Queen Anne, when the partizans of the Pretender were anxious to promote his interest in England, Mr Leslie wrote a letter from Bar-le-Duc, in which he dwelt at large on the graceful mien of the Pretender, his magnanimity of spirit, devotion free from bigotry, application to business, ready apprehension, sound judgment, and affability, so that none conversed with him, who were not charmed with his good sense and temper. In 1715, a rash and ill digested enterprise took place in Scotland and in the northern parts of England, in favour of the Pretender, which ultimately terminated in the dispersion of the rebels; this obliged him to quit France, and retire to Italy, whither Mr Leslie followed him, and remained in that country till the year 1721. He met with so many difficulties and disappointments at this time, that he determined to return and die in his native country. Some of his friends acquainted Lord Sunderland with his resolution, who generously promised to protect him from the interference of government. On the arrival of Mr Leslie in England, a member of the house of commons waited upon his lordship with the news; but we are happy to inform our readers that he had no great reason to boast of his reception. On Mr Leslie's return to Ireland, he died in 1722, in the month of April, at his own house, in the county of Monaghan,

He was undoubtedly a man of great merit and extensive erudition, distinguished by his piety, humility, and integrity, among whose works are some masterly defences of the Christian religion, against Deists and Jews, and of the Protestant faith against that of the church of Rome. His opinions were rather singular respecting church government, but it must be allowed that he defended them with great ability and acuteness.

LESSER TONE, in *Music*. See TONE.

LESSINES, a town of the Netherlands, in Hainault, seated on the river Dender, and famous for its linen manufacture. W. Long. 3. 53. N. Lat. 51. 41.

Lessons ‖ L'Estrange

LESSONS, among ecclesiastical writers, portions of the Holy Scripture, read in Christian churches, at the time of divine service.

In the ancient church, reading the Scriptures was one part of the service of the catechumens; at which all persons were allowed to be present, in order to obtain instruction.

The church of England, in the choice of lessons, proceeds as follows: for the first lesson on ordinary days, she directs, to begin at the beginning of the year with Genesis, and so continue on, till the books of the Old Testament are read over; only omitting the Chronicles, which are for the most part the same with the books of Samuel and Kings, and other particular chapters in other books, either because they contain names of persons, places, or other matters less profitable to ordinary readers.

The course of the first lessons for Sundays is regulated after a different manner. From Advent to Septuagesima Sunday, some particular chapters of Isaiah are appointed to be read, because that book contains the clearest prophecies concerning Christ. Upon Septuagesima Sunday Genesis is begun, because that book which treats of the fall of man, and the severe judgement of God inflicted on the world for sin, best suits with a time of repentance and mortification. After Genesis, follow chapters out of the books of the Old Testament, as they lie in order; only on festival Sundays, such as Easter, Whitsunday, &c. the particular history relating to that day is appointed to be read; and on the saints days, the church appoints lessons out of the moral books, such as Proverbs, Ecclesiastes, Ecclesiasticus, &c. as containing excellent instructions for the conduct of life.

As to the second lessons, the church observes the same course both on Sundays and week days: reading the Gospels and Acts of the Apostles in the morning, and the Epistles in the evening, in the order they stand in the New Testament: excepting on saints days and holidays, when such lessons are appointed as either explain the mystery, relate the history, or apply the example to us.

LESTOFF, or LEOSTOFF, a town of Suffolk in England, seated on the sea shore, 117 miles north-east of London. It is concerned in the fisheries of the North sea, cod, herrings, mackerels, and sprats; has a church and a dissenting meeting-house; and for its security, six 18 pounders, which they can move as occasion requires; but it has no battery. The town contained 3189 inhabitants in 1811. The streets, though tolerably paved, are narrow. The coast is there very dangerous for strangers.

L'ESTRANGE, SIR ROGER, a celebrated writer in the 17th century, was descended from an ancient family, seated at Hunstanton-hall in the county of Norfolk, where he was born in 1616, being the youngest son of Sir Hammond L'Estrange, Bart. a zealous royalist. Having in 1644 obtained a commission from King Charles I. for reducing Lynn in Norfolk, then in possession of the parliament, his design was discovered, and his person seized. He was tried by a court-martial at Guildhall in London, and condemned to die as a spy; but was reprieved, and continued in Newgate for some time. He afterwards went beyond sea; and in August 1653 returned to England, where he applied

L'Estrange || Letchlade.

plied himself to the protector Oliver Cromwell, and having once played before him on the bass viol, he was by some nicknamed *Oliver's fiddler*. Being a man of parts, master of an easy humorous style, but withal in narrow circumstances, he set up a newspaper, under the title of *The Public Intelligencer*, in 1663; but which he laid down, upon the publication of the first London gazette in 1665, having been allowed, however, a consideration by government. Some time after the Popish plot, when the Tories began to gain the ascendant over the Whigs, he, in a paper called the *Observator*, became a zealous champion for the former. He was afterwards knighted, and served in the parliament called by King James II. in 1685. But things taking a different turn in that prince's reign, in point of liberty of conscience, from what most people expected, our author's *Observators* were disused as not at all suiting the times. However, he continued licenser of the press till King William's accession, in whose reign he met with some trouble as a disaffected person. However, he went to his grave in peace, after he had in a manner survived his intellects. He published a great many political tracts, and translated several works from the Greek, Latin, and Spanish; viz. Josephus's works, Cicero's Offices, Seneca's Morals, Erasmus's Colloquies, Æsop's Fables, and Bonas's Guide to Eternity. The character of his style has been variously represented; his language being observed by some to be easy and humorous, while Mr Gordon says, "that his productions are not fit to be read by any who have taste or good-breeding. They are full of phrases picked up in the streets, and nothing can be more low or nauseous."

LESTWEITHEL, a town of Cornwall in England, about 229 miles distant from London. It is a well-built town, where are kept the common gaol, the weights and measures for the whole stannary, and the county courts. It stands on the river Foy, which brought up vessels from Fowey, before it was choked up with sand coming from the tin mines, and therefore its once flourishing trade is decayed; but it holds the bushelage of coals, salt, malt, and corn, in the town of Fowey, as it does the anchorage in its harbour. It was made a corporation by Richard earl of Cornwall when he was king of the Romans, and has had other charters since. It consists of seven capital burgesses (whereof one is a mayor), and 17 assistants or common council. It is part of the duchy of Cornwall, to which it pays 11l. 19s. 10d. a year for its liberties. Its chief trade is the woollen manufactory. It first returned members to parliament in the 33d of Edward I. They are chosen by the burgesses and assistants. It was anciently the shire town. The number of inhabitants in 1811 was 825.

LETCHLADE, a town of Gloucestershire, 90 miles from London, on the borders of Oxfordshire and Berks, and the great road to Gloucester; had anciently a nunnery, and a priory of black canons. In this parish is Clay-hill. The market is on Tuesday: and it has two fairs. It is supposed to have been a Roman town; for a plain Roman road runs from hence to Cirencester; and by digging in a meadow near it some years ago, an old building was discovered, supposed to be a Roman bath, which was 50 feet long, 40 broad, and 4 high, supported with 100 brick pillars, curiously inlaid with stones of divers colours of tesseraic work. The Leech, the Coln, the Churn, and Isis, which all rise in the Cotswould hills, join and become one river, called the *Thames*, which begins here to be navigable; and barges take in butter, cheese, and other goods, at its quay, for London. Population 993 in 1811. Letchlade || Letter.

LETHARGY, in *Medicine* (from λεθη, *oblivion*, and αργια, *numbness, laziness*), a disease consisting of a profound drowsiness or sleepiness, from which the patient can scarce be awaked; or, if awaked, he remains stupid, without sense or memory, and presently sinks again into his former sleep. See MEDICINE *Index*.

LETHARGY, in *Farriery*. See FARRIERY, N° 507.

LETHE, (from λανθανω, "I hide or conceal"), in the ancient mythology, one of the rivers of hell, signifying oblivion or forgetfulness; its waters having, according to poetic fiction, the peculiar quality of making those who drank them forget every thing that was past.

LETI, GREGORIO, an eminent Italian writer, was descended of a family which once made a considerable figure at Bologna: Jerom, his father, was page to Prince Charles de Medicis; served some time in the troops of the grand duke as captain of foot; and settling at Milan, married there in 1628. He was afterwards governor of Almantea in Calabria, and died at Salerno in 1639. Our author was born at Milan in 1630, studied under the Jesuits at Cosenza, and was afterwards sent by an uncle to Rome, who would have him enter into the church; but he being averse to it, went to Geneva, where he studied the government and the religion there. Thence he went to Lausanne; and contracting an acquaintance with John Anthony Guerin, an eminent physician, lodged at his house, made profession of the Calvinist religion, and married his daughter. He settled at Geneva; where he spent almost twenty years, carrying on a correspondence with learned men, especially those of Italy. Some contests obliged him to leave that city in 1679; upon which he went to France, and then to England, where he was received with great civility by Charles II. who, after his first audience, made him a present of a thousand crowns, with a promise of the place of historiographer. He wrote there the History of England; but that work not pleasing the court on account of his too great liberty in writing, he was ordered to leave the kingdom. He went to Amsterdam in 1682, and was honoured with the place of historiographer to that city. He died suddenly in 1701. He was a man of indefatigable application, as the multiplicity of his works show. The principal of these are, 1. The universal monarchy of Louis XIV. 2. The Life of Pope Sixtus V. 3. The Life of Philip II. King of Spain. 4. The Life of the Emperor Charles V. 5. The Life of Elizabeth, Queen of England. 6. The History of Oliver Cromwell. 7. The History of Great Britain, 5 vols 12mo. 8. The History of Geneva, &c.

LETRIM, a county of Ireland. See LEITRIM.

LETTER, a character used to express one of the simple sounds of the voice; and as the different simple sounds are expressed by different letters, these, by being differently compounded, become the visible signs or characters of all the modulations and mixtures of sounds used to express our ideas in a regular language. See LANGUAGE. Thus, as by the help of speech we render

Letter. render out ideas audible; by the assistance of letters we render them visible, and by their help we can wrap up our thoughts, and send them to the most distant parts of the earth, and read the transactions of different ages. As to the first letters, what they were, who first invented them, and among what people they were first in use, there is still room to doubt; Philo attributes this great and noble invention to Abraham; Josephus, St Irenæus, and others, to Enoch; Bibliander to Adam; Eusebius, Clemens Alexandrinus, Cornelius Agrippa, and others, to Moses; Pomponius Mela, Herodian, Rufus Festus, Pliny, Lucan, &c. to the Phœnicians; St Cyprian, to Saturn; Tacitus, to the Egyptians; some, to the Ethiopians; and others, to the Chinese: but, with respect to these last, they can never be entitled to this honour, since all their characters are the signs of words, formed without the use of letters; which renders it impossible to read and write their language without a vast expence of time and trouble; and absolutely impossible to print it by the help of types, or any other manner but by engraving, or cutting in wood. See PRINTING.

There have been also various conjectures about the different kinds of letters used in different languages: thus, according to Crinitus, Moses invented the Hebrew letters; Abraham, the Syriac and Chaldee; the Phœnicians, those of Attica, brought into Greece by Cadmus, and from thence into Italy by the Pelasgians; Nicostrata, the Roman; Isis, the Egyptian; and Vulfilas, those of the Goths.

It is probable, that the Egyptian hieroglyphics were the first manner of writing: but whether Cadmus and the Phœnicians learned the use of letters from the Egyptians, or from their neighbours of Judea or Samaria, is a question; for since some of the books of the Old Testament were then written, they are more likely to have given them the hint, than the hieroglyphics of Egypt. But wheresoever the Phœnicians learned this art, it is generally agreed, that Cadmus the son of Agenor first brought letters into Greece; whence, in following ages, they spread over the rest of Europe. See ALPHABET and WRITING.

Letters make the first part or elements of grammar; an assemblage of these compose syllables and words, and these compose sentences. The alphabet of every language consists of a number of letters, which ought each to have a different sound, figure, and use. As the difference of articulate sounds was intended to express the different ideas of the mind, so one letter was originally intended to signify only one sound, and not, as at present, to express sometimes one sound and sometimes another; which practice has brought a great deal of confusion into the languages, and rendered the learning of the modern tongues much more difficult that it would otherwise have been. This consideration, together with the deficiency of all the known alphabets, from their wanting some letters to express certain sounds, has occasioned several attempts towards an universal alphabet, to contain an enumeration of all such single sounds or letters as are used in any language. See ALPHABET.

Grammarians distinguish letters into vowels, consonants, mutes, liquids, diphthongs, and characteristics. They are likewise divided into capital and small letters. They are also denominated from the shape and turn of the letters; and in writing are distinguished into different hands, as round text, German text, round hand, Italian, &c. and in printing, into Roman, Italic, and black letter. Letter.

The term LETTER, or *Type*, among printers, not only includes the CAPITALS, SMALL CAPITALS, and small letters, but all the points, figures, and other marks cast and used in printing; and also the large ornamental letters, cut in wood or metal, which take place of the illumined letters used in manuscripts. The letters used in printing are cast at the ends of small pieces of metal, about three quarters of an inch in length; and the letter being not indented, but raised, easily gives the impression, when, after being blacked with a glutinous ink, paper is closely pressed upon it. See the articles PRINTING and TYPE. A fount of letters includes small letters, capitals, small capitals, points, figures, spaces, &c.; but besides, they have different kinds of two-line letters, only used for titles, and the beginning of books, chapters, &c. See FOUNT.

LETTER is also a writing addressed and sent to a person. See EPISTLE.

The art of epistolary writing, as the late translator of Pliny's Letters has observed, was esteemed by the Romans in the number of liberal and polite accomplishments; and we find Cicero mentioning with great pleasure, in some of his letters to Atticus, the elegant specimen he had received from his son of his genius in this way. It seems indeed to have formed part of their education; and, in the opinion of Mr Locke, it well deserves to have a share in ours. "The writing of letters (as that judicious author observes) enters so much into all the occasions of life, that no gentleman can avoid showing himself in compositions of this kind. Occurrences will daily force him to make this use of his pen, which lays open his breeding, and sense, and his abilities, to a severer examination than any oral discourse." It is to be wondered we have so few writers in our own language who deserve to be pointed out as models upon such an occasion. After having named Sir William Temple, it would perhaps be difficult to add a second. The elegant writer of Cowley's life mentions him as excelling in this uncommon talent; but as that author declares himself of opinion, "That letters which pass between familiar friends, if they are written as they should be, can scarce ever be fit to see the light," the world is deprived of what no doubt would have been well worth its inspection. A late distinguished genius treats the very attempt as ridiculous, and professes himself "a mortal enemy to what they call *a fine letter*." His aversion, however, was not so strong, but he knew to conquer it when he thought proper; and the letter which closes his correspondence with Bishop Atterbury is, perhaps, the most genteel and manly address that ever was penned to a friend in disgrace. The truth is, a fine letter does not consist in saying fine things, but in expressing ordinary ones in an uncommon manner. It is the *propriè communia dicere*, the art of giving grace and elegance to familiar occurrences, that constitutes the merit of this kind of writing. Mr Gay's letter, concerning the two lovers who were struck dead with the same flash of lightning, is a masterpiece of the sort; and the specimen he has there given

Letter. given of his talents for this species of composition make it much to be regretted we have not more from the same hand.

Ward's Oratory. *Of the Style of Epistolary Composition.* Purity in the choice of words, and justness of construction, joined with perspicuity, are the chief properties of this style. Accordingly Cicero says: "In writing letters, we make use of common words and expressions." And Seneca more fully, "I would have my letters to be like my discourses, when we either sit or walk together, unstudied and easy." And what prudent man, in his common discourse, aims at bright and strong figures, beautiful turns of language, or laboured periods? Nor is it always requisite to attend to exact order and method. He that is master of what he writes, will naturally enough express his thoughts without perplexity and confusion: and more than this is seldom necessary, especially in familiar letters.

Indeed, as the subjects of epistles are exceedingly various, they will necessarily require some variety in the manner of expression. If the subject be something weighty and momentous, the language should be strong and solemn; in things of a lower nature, more free and easy; and upon lighter matters, jocose and pleasant. In exhortations, it ought to be lively and vigorous; in consolations, kind and compassionate; and in advising, grave and serious. In narratives, it should be clear and distinct; in requests, modest; in commendations, friendly; in prosperity cheerful, and mournful in adversity. In a word, the style ought to be accommodated to the particular nature of the thing about which it is conversant.

Besides, the different character of the person, to whom the letter is written, requires a like difference in the modes of expression. We do not use the same language to private persons, and those in a public station; to superiors, inferiors, and equals. Nor do we express ourselves alike to old men and young, to the grave and facetious, to courtiers and philosophers, to our friends and strangers. Superiors are to be addressed with respect, inferiors with courtesy, and equals with civility; and every one's character, station, and circumstances in life, with the relation we stand in to him, occasion some variety in this respect. But when friends and acquaintances correspond by letters, it carries them into all the freedom and good-humour of conversation; and the nearer it resembles that the better, since it is designed to supply the room of it. For when friends cannot enjoy each others company, the next satisfaction is to converse with each other by letters. Indeed, sometimes greater freedom is used in epistles, than the same persons would have taken in discoursing together; because, as Cicero says, "A letter does not blush." But still nothing ought to be said in a letter, which, considered in itself, would not have been fit to say in discourse; though modesty perhaps, or some other particular reason, might have prevented it. And thus it frequently happens in requests, reproofs, and other circumstances of life. A man can ask that by writing, which he could not do by word, if present; or blame what he thinks amiss in his friend with greater liberty when absent, than if they were together. From hence it is easy to judge of the fitness of any expression to stand in an epistle, only by considering, whether the same way of speaking would be proper in talking with the same person. Indeed, this difference may be allowed, that as persons have more time to think, when they write, than when they speak; a greater accuracy of language may sometimes be expected in one, than the other. However, this make no odds as to the the kind of style: for every one would choose to speak as correctly as he writes, if he could. And therefore all such words and expressions as are unbecoming in conversation, should be avoided in letters; and a manly simplicity, free of all affectation, plain, but decent and agreeable, should run through the whole. This is the usual style of Cicero's epistles, in which the plainness and simplicity of his diction is accompanied with something so pleasant and engaging, that he keeps up the attention of his reader, without suffering him to tire. On the other hand, Pliny's style is succinct and witty: but generally so full of turns and quibbles upon the sound of words, as apparently render it more stiff and affected than agrees with conversation, or than a man of sense would choose in discourse, were it in his power. You may in some measure judge of Pliny's manner, by one short letter to his friend, which runs thus "How fare you? As I do in the country? pleasantly? that is, at leisure? For which reason I do not care to write long letters, but to read them; the one as the effect of niceness, and the other of idleness. For nothing is more idle than your nice folks, or curious than your idle ones. Farewell." Every sentence here consists of an antithesis, and a jingle of words, very different from the style of conversation, and plainly the effect of study. But this was owing to the age in which he lived, at which time the Roman eloquence was sunk into puns, and an affectation of wit; for he was otherwise a man of fine sense and great learning. Letter.

Letter of Attorney, in *Law*, is a writing by which one person authorizes another to do some lawful act in his stead; as to give seisin of lands, to receive debts, suc a third person, &c.

The nature of this instrument is to transfer to the person to whom it is given, the whole power of the maker, to enable him to accomplish the act intended to be performed. It is either general or special; and sometimes it is made revocable, which is when a bare authority is only given; and sometimes it is irrevocable, as where debts, &c. are assigned from one person to another. It is generally held, that the power granted to the attorney must be strictly pursued; and that where it is made to three persons, two cannot execute it. In most cases, the power given by a letter of attorney determines upon the death of the person who gave it. No letter of attorney made by any seaman, &c. in any ship of war, or having letters of marque, or by their executors, &c. in order to empower any person to receive any share of prizes or bounty-money, shall be valid, unless the same be made revocable, and for the use of such seamen, and be signed and executed before, and attested by, the captain and one other of the signing officers of the ship, or the mayor or chief magistrate of some corporation.

Letter of Mart or *Marque*. See MARQUE.

Letters Patent or *Overt*, are writings sealed with the great seal of England, whereby a man is authorized to do, or enjoy any thing, which, of himself, he

Letter ‖ Leucata.

he could not do. See PATENT.—They are so called by reason of their form; as being open, with the seal affixed, ready to be shown for the confirmation of the authority given by them.

LETTUCE. See LACTUCA, BOTANY *Index*; and for the cultivation of the different kinds of lettuce, see GARDENING *Index*.

LEVANT, in *Geography*, signifies any country situated to the east of us, or in the eastern side of any continent or country, or that on which the sun rises.

LEVANT is also a name given to the eastern part of the Mediterranean sea, bounded by Natolia or the Lesser Asia on the north, by Syria and Palestine on the east, by Egypt and Barca on the south, and by the island of Candia and the other part of the Mediterranean on the west.

LEVATOR, in *Anatomy*, a name given to several muscles. See ANATOMY, *Table of the Muscles*.

LEUCA, in antiquity, a geographical measure of length in use among the latter Gauls; which, according to Jornandes, who calls it *leuga*, contained fifteen hundred paces, or one mile and a half. Hence the name of *league*, now reckoned at three miles; in the lower age, called *leuva*.

LEUCADENDRON, a genus of plants belonging to to the tetrandria class; and in the natural method ranking under the 48th order, *Aggregatæ*. See BOTANY *Index*.

LEUCADIA, formerly called *Neritis*, a peninsula of Acarnania, (Homer); but afterwards, by cutting through the peninsula, made an island, as it is at this day, called *St Maura*.

LEUCAS, in *Ancient Geography*, formerly called *Neritos* and *Neritum*, a town of Leucadia or Leucas; near a narrow neck of land, or isthmus, on a hill facing the east and Acarnania; the foot or lower part of the town was a plain lying on the sea by which Leucadia was divided from Acarnania, (Livy); though Thucydides places Leucas more inward in the island, which was joined to the continent by a bridge. It was an illustrious city; the capital of Acarnania, and the place of general assembly.

LEUCATA, or LEUCATE, in *Ancient Geography*, a promontory of Leucadia, according to Strabo, a white rock projecting into the sea towards Cephalenia, on which stood a temple of Apollo surnamed *Leucadius*. At his festival, which was annually celebrated here, the people were accustomed to offer an expiatory sacrifice to the god, and to avert on the head of the victim all the calamities with which they might be threatened. For this purpose, they made choice of a criminal condemned to die; and leading him to the brink of the promontory, precipitated him into the sea amidst the loud shouts of the spectators. The criminal, however, seldom perished in the water: for it was the custom to cover him with feathers, and to fasten birds to his body, which by spreading their wings might serve to break his fall. No sooner did he touch the sea, than a number of boats stationed for the purpose flew to his assistance, and drew him out; and after being thus saved, he was banished for ever from the territory of Leucadia. (*Strabo*, lib. x. p. 452).

According to ancient authors, a strange opinion concerning this promontory prevailed for some time among the Greeks. They imagined that the leap of Leucata was a potent remedy against the violence of love. Hence disappointed or despairing lovers, it is said, were often known to have come to Leucadia; and, having ascended the promontory, offered sacrifices in the temple, and engaged by a formal vow to perform the desperate act, to have voluntarily precipitated themselves into the sea. Some are reported to have recovered from the effects of the fall: and among others mention is made * of a citizen of Buthroton, in Epirus, whose passions always taking fire at new objects, he four times had recourse to the same remedy, and always with the same success. As those who made the trial, however, seldom took any precaution to render their fall less rapid, they were generally destroyed: and women often fell victims to this act of desperation. At Leucata was shown the tomb of Artemisia, that celebrated queen of Caria, who gave so many proofs of courage at the battle of Salamis †. Inflamed with a violent passion for a young man who inflexibly refused her love, she surprised him in his sleep and put out his eyes. Regret and despair soon brought her to Leucata, where she perished in the waves notwithstanding every effort to save her ‡. Such likewise was the end of the unhappy Sappho. Forsaken by her lover Phaon, she came hither to seek relief from her sufferings, and found her death. (*Menand. ap. Strab.* lib. x. p. 452.)

Leucata ‖ Leucopetrians.

* *Ptolem. Hephæst. ap. Phot.* p. 491.

† *Herodot.* lib. viii. cap. 87.

‡ *Ptolem. Hephæst.* ibid.

LEUCIPPUS, a celebrated Greek philosopher and mathematician; first author of the famous system of atoms and vacuums, and of the hypothesis of storms; since attributed to the moderns. He flourished about 428 B. C.

LEUCOGÆUS, in *Ancient Geography*, a hill situated between Puteoli and Neapolis in Campania, abounding in sulphur; now *l'Alumera*. Whence there were also springs called *Leucogæi fontes*; the waters of which, according to Pliny, gave a firmness to the teeth, clearness to the eyes, and procured a cure in wounds.

LEUCOJUM, GREAT SNOW-DROP, a genus of plants belonging to the hexandria class; and in the natural method ranking under the ninth order, *Spathaceæ*. See BOTANY *Index*.

LEUCOMA, in antiquity, was a public register amongst the Athenians, in which were inserted the names of all the citizens, as soon as they were of age to enter upon their paternal inheritance.

LEUCOMA, in *Surgery*, a distemper of the eyes, otherwise called *albugo*. See ALBUGO and SURGERY.

LEUCOPETRA, in *Ancient Geography*, so called from its white colour, (Strabo); a promontory of the Bruttii, in the territory of Rheginm, the termination of the Apennines; the utmost extremity of the Bruttii, or the modern *Calabria Ultra*; as the Japygium is of the ancient Calabria, or the modern Calabria Citra.

LEUCOPETRIANS, in ecclesiastical history, the name of a fanatical sect which sprang up in the Greek and eastern churches towards the close of the 12th century: the fanatics of this denomination professed to believe in a double Trinity, rejected wedlock, abstained from flesh, treated with the utmost contempt the sacraments of baptism and the Lord's supper, and all the various branches of external worship; placed the essence of religion in internal prayer alone; and maintained,

Leucopetrians or Leuctra.

tained, as it is said, that an evil being, or genius, dwelt in the breast of every mortal, and could be expelled from thence by no other method than by perpetual supplication to the Supreme Being. The founder of this enthusiastical sect is said to have been a person called *Leucopetrus*, and his chief disciple Tychicus, who corrupted, by fanatical interpretations, several books of Scripture, and particularly St Matthew's Gospel.

LEUCOPHLEGMATIA, in *Medicine*, a kind of dropsy, otherwise called *anasarca*. See LEUCOPOTION, MEDICINE *Index*.

LEUCOTHOE, or LEUCOTHEA, in fabulous history, the wife of Athamas, changed into a sea deity; see INO. She was called *Matuta* by the Romans. She had a temple at Rome, where all the people, particularly women, offered vows for their brothers children. They did not entreat the deity to protect their own children, because Ino had been unfortunate in hers. No female slaves were permitted to enter the temple; or if their curiosity tempted them to trangress this rule, they were beaten with the greatest severity. To this supplicating for other people's children, Ovid alludes in these lines,

Non tamen hanc pro stirpe sua pia mater adorat,
Ipsa parum felix visa fuisse parens. Fast. vi.

LEUCTRA, in *Ancient Geography*, a town of Bœotia, to the west of Thebes, or lying between Plateæ and Thespiæ, where the Lacedæmonians had a great defeat given them by Epaminondas and Pelopidas, the Theban generals. The Theban army consisted at most but of 6000 men, whereas that of the enemy was at least thrice that number; but Epaminondas trusted most in his horse, wherein he had much the advantage, both in their quality and good management; the rest he endeavoured to supply by the disposition of his men, and the vigour of the attack. He even refused to suffer any to serve under him in the engagement, but such as he knew to be fully resolved to conquer or die. He put himself at the head of the left wing, opposite to Cleombrotus king of Sparta, and placed the main stress of the battle there; rightly concluding, that if he could break the body of the Spartans, which was but 12 men deep, whereas his own was 50, the rest would be soon put to flight. He closed his own with the sacred band, which was commanded by Pelopidas; and placed his horse in the front. His right, from which he had drawn so many men, he ordered to fall back, in a slanting line, as if they declined to fight, that they might not be too much exposed to the enemy, and might serve him for a corps of reserve in case of need. This was the wise disposition which the two Theban generals made of these few but resolute forces; and which succeeded in every part, according to their wish. Epaminondas advanced with his left wing, extending it obliquely, in order to draw the enemy's right from the main body; and Pelopidas charged them with such desperate speed and fury, at the head of his battalion, before they could reunite, that their horse, not being able to stand the shock, were forced back upon their infantry, which threw the whole into the greatest confusion: so that though the Spartans were of all the Greeks the most expert in recovering from any surprise, yet their skill on this occasion either failed them or proved of no effect; for the Thebans, observing the dreadful impression they had made on them with their horse, pushed furiously upon the Spartan king, and opened their way to him with a great slaughter. Leuctra, Level.

Upon the death of Cleombrotus, and several officers of note, the Spartans, according to custom, renewed the fight with double vigour and fury, not so much to revenge his death as to recover his body, which was such an established point of honour as they could not give up without the greatest disgrace. But here the Theban general wisely chose rather to gratify them in that point, than to hazard the success of a second onset; and left them in possession of their king, whilst he marched straight against their other wing, commanded by Archidamus, and consisting chiefly of such auxiliaries and allies as had not heartily engaged in the Spartan interest: these were so discouraged by the death of the king and the defeat of that wing, that they betook themselves to flight, and were presently followed by the rest of the army. The Thebans, however, pursued them so closely, that they made a second dreadful slaughter among them; which completed Epaminondas's victory, who remained master of the field, and erected a trophy in memory of it. This was the conclusion of the famed battle of Leuctra, in which the Lacedæmonians lost 4000 men, and the Thebans but 300.

LEVEL is an instrument which enables us to find a line parallel to the horizon, or concentric with the circumference of the earth, and to continue it to any distance:—to form a surface exactly level, having all its parts at equal distances from the earth's centre, or to find the difference of ascent between several places for the purpose of making roads, conducting water, draining low grounds, rendering rivers navigable, forming canals, &c. &c.

Among the great variety of instruments which have been invented for these purposes, the following are the most important and useful.

Air-LEVEL, that which shows the line of level by means of a bubble of air inclosed with some liquor in a glass tube of an indeterminate length and thickness, whose two ends are hermetically sealed. When the bubble fixes itself at a certain mark, made exactly in the middle of the tube, the plane or ruler wherein it is fixed is level. When it is not level, the bubble will rise to one end. This glass tube may be set in another of brass, having an aperture in the middle, through which the bubble of air may be observed. The liquor with which the tube is filled is oil of tartar, or aqua secunda; these not being liable to freeze as common water, nor to rarefaction and condensation, as spirit of wine is. This application of a bubble of air was the invention of Dr Hooke. Air-level.

There is one of these instruments made with sights, which is an improvement upon that last described, and which, by a little additional apparatus, becomes more commodious and exact. It consists of an air level (fig. 1.), about eight inches long, and seven or eight lines in diameter, set in a brass tube 2, with an aperture in the middle, C. The tubes are supported by a straight ruler a foot long; at whose end are fixed two sights, 3, 3, exactly perpendicular to the tubes, and of an equal height, having a square hole, formed by two fillets of Plate CCXCII. fig. 1.

Level. of brass crossing each other at right angles, in the middle of which is drilled a very small hole, through which a point on a level with the instrument is observed. The brass tube is fastened on the ruler by means of two screws; one of which, marked 4, serves to raise or depress the tube at pleasure, for bringing it towards a level. The top of the ball and socket is rivetted to a little ruler that springs, one end whereof is fastened with a screw to the great ruler, and at the other end has a screw, 5, serving to raise and depress the instrument when nearly level.

The instrument just described, however, is still less commodious than the following one; for though the holes be ever so small, they will take in too great a space to determine the point of level precisely.

The instrument alluded to consists of an air-level, Fig. 2. with telescopic sights. This level (fig. 2.) is like the last; with this difference, that, instead of plain sights, it carries a telescope to determine exactly a point of level at a great distance. The telescope is a little brass tube, about 15 inches long, fastened on the same ruler as the level. At the end of the tube of the telescope, marked 1, enters the little tube 1, carrying the eye-glass and a hair placed horizontally in the focus of the object-glass, 2; which little tube may be drawn out, or pushed into the great one, for adjusting the telescope to different sights: at the other end of the telescope is placed the object-glass. The screw 3, is for raising or lowering the little fork, for carrying the hair, and making it agree with the bubble of air when the instrument is level; and the screw 4, is for making the bubble of air, D or E, agree with the telescope: the whole is fitted to a ball and socket. M. Huygens is said to be the first inventor of this level; which has this advantage, that it may be inverted by turning the ruler and telescope half round; and if then the hair cut the same point that it did before, the operation is just.

It may be observed, that one may add a telescope to any kind of level, by applying it upon, or parallel to, the base or ruler, when there is occasion to take the level of remote objects.

2 Desaguliers's level-ling instrument. Dr Desaguliers contrived an instrument, by which the difference of level of two places, which could not be taken in less than four or five days with the best telescopic levels, may be taken in as few hours. The Fig. 3. instrument is as follows. To the ball C (fig. 3.) is joined a recurve tube BA, with a very fine bore, and a small bubble at top A, whose under part is open. It is evident from the make of this instrument, that if it be inclined in carrying, no injury will be done to the liquor, which will always be right both in the ball and tube when the instrument is set upright. If the air at C be so expanded with heat, as to drive the liquor to the top of the tube, the cavity A will receive the liquor, which will come down again and settle at D, or near it, according to the level of the place where the instrument is, as soon as the air at C returns to the same temperament as to heat and cold. To preserve the same degree of heat, when the different observations are made, the machine is fixed in a tin vessel EF, filled with water up to *g h*, above the ball, and a very sensible thermometer has also its ball under water, that one may observe the liquor at D, in each experiment, when the thermometer stands at the same height as before. The water is poured out when the instrument is carried; which one may do conveniently by means of the wooden frame, which is set upright by the three screws, S, S, S, (fig. 4.), and a line and Fig. 4. and plummet PP, (fig. 5.). At the back part of the wooden 5. frame, from the piece at top K, hangs the plummet P, over a brass point at N; M *m* are brackets to make the upright board KN continue at right angles with the horizontal one at N. Fig. 6. represents a front Fig. 6. view of the machine, supposing the fore part of the tin vessel transparent; and here the brass socket of the recurve-tube, into which the ball is screwed, has two wings at H, fixed to the bottom, that the ball may not break the tube by its endeavour to emerge when the water is poured in as high as *g h*.

After the doctor had contrived this machine, he considered, that as the tube is of a very small bore, if the liquor should rise into the ball at A (fig. 3.) in carrying the instrument from one place to another, some of it would adhere to the sides of the ball A, and upon its descent in making the experiment, so much might be left behind, that the liquor would not be high enough at D to show the difference of the level; therefore, to prevent that inconveniency, he contrived a blank screw, to shut up the hole at A, as soon as one experiment is made, that in carrying the machine, the air in A may balance that in C, so that the liquor shall not run up and down the tube, whatever degree of heat and cold may act upon the instrument, in going from one place to another. Now, because one experiment may be made in the morning, the water may be so cold, that when a second experiment is made at noon the water cannot be brought to the same degree of cold it had in the morning; therefore, in making the first experiment, warm water must be mixed with the cold, and when the water has stood some time, before it comes to be as cold as it is likely to be at the warmest part of that day, observe and set down the degree of the thermometer at which the spirit stands, and likewise the degree of the water in the barometer at D; then screw on the cape at A, pour out the water, and carry the instrument to the place whose level you would know; then pour in your water, and when the thermometer is come to the same degree as before, open the screw at top, and observe the liquor in the barometer.

The doctor's scale for the barometer is ten inches long, and divided into tenths; so that such an instrument will serve for any heights not exceeding ten feet, each tenth of an inch answering to a foot in height.

The doctor made no allowance for the decrease of density in the air, because he did not propose this machine for measuring mountains (though, with a proper allowance for the decreasing density of the air, it will do very well), but for heights that want to be known in gardens, plantations, and the conveyance of water, where an experiment that answers two or three feet in a distance of 20 miles, will render this a very useful instrument.

Artillery Foot-Level is in form of a square, having 3 Artillery its two legs or branches of an equal length; at a junc- foot-level. ture whereof is a little hole, whence hangs a thread

and

Level.

and plummet playing on a perpendicular line in the middle of a quadrant. It is divided into twice 45 degrees from the middle. Fig. 7.

Fig. 7.

This instrument may be used on other occasions, by placing the ends of its two branches on a plane; for when the thread plays perpendicularly over the middle division of the quadrant, the plane is assuredly level. To use it in gunnery, place the two ends on the piece of artillery, which you may raise to any proposed height, by means of the plummet, whose thread will give the degree above the level.

4 Carpenters and Paviers level.

Carpenters and Paviers LEVEL, consists of a long ruler, in the middle of which is fitted, at right angles, another somewhat larger. At the top of this is fastened a thread, which, when it hangs over a fiducial line at right angles with the base, shows that this base is horizontal. Sometimes this level is composed of one board. See fig. 8.

Fig. 8.

5 Gunners level. Fig. 9.

Gunners LEVEL, for levelling cannons and mortars, consists of a triangular brass plate, about four inches high, (fig. 9.) at the bottom of which is a portion of a circle, divided only into 45 degrees; as this number is sufficient for the highest elevation of cannons and mortars, and for giving shot the greatest range. On the centre of this segment of a circle is screwed a piece of brass, by means of which it may be fixed or screwed at pleasure. The end of this piece of brass is made so as to serve for a plummet and index, in order to show the different degrees of elevation of pieces of artillery. This instrument has also a brass foot, to set upon cannons or mortars, so that when those pieces are horizontal, the instrument will be perpendicular. The foot of this level is to be placed on the piece to be elevated, in such a manner, as that the point of the plummet may fall on the proper degree; this is what they call *levelling the piece.*

6 Masons level.

Masons LEVEL, is composed of three rules, so joined as to form an isosceles triangle somewhat like a Roman A. At the vertex of this triangle is fastened a thread, from which hangs a plummet, that passes over a fiducial line, marked in the middle of the base, when the thing to which the level is applied is horizontal; but declines from the mark, when the thing is lower on the one side than on the other.

7 Plumb or pendulum level. Fig. 10.

Plumb or *Pendulum* LEVEL, that which shows the horizontal lines by means of another line perpendicular to that described by a plummet or pendulum. This instrument, (fig. 10.) consists of two legs or branches, joined together at right angles. The branch which carries the thread and plummet is about a foot and a half long; and the thread is hung towards the top of the branch, at the point 2. The middle of the branch where the thread passes is hollow, so that it may hang free everywhere: but towards the bottom, where there is a little blade of silver, on which is drawn a line perpendicular to the telescope, the said cavity is covered by two pieces of brass, making as it were a kind of case, lest the wind should agitate the thread. For this reason the silver blade is covered with a glass G, in order that it may be seen when the thread and plummet play upon the perpendicular. The telescope is fastened to the other branch of the instrument, and is about two feet long; having a hair placed horizontally across the focus of the object-glass, which determines the point of the level. The telescope must be fitted at right angles to the perpendicular. It has a ball and socket, by which it is fixed to the foot, and was invented by M. Picard.

Level.

8 Mariotte's reflecting level.

Reflecting LEVEL, that made by means of a pretty long surface of water representing the same object inverted which we see erected by the eye; so that the point where these two objects appear to meet is a level with the place where the surface of the water is found. This is the invention of M. Mariotte.

9 Cassini's.

There is another reflecting level consisting of a mirror of steel, or the like, well polished, and placed a little before the object-glass of a telescope, suspended perpendicularly. This mirror must make an angle of 45^0 with the telescope; in which case the perpendicular line of the telescope is converted into a horizontal line, which is the same with the line of level. This is the invention of M. Cassini.

10 Water level, or chorobates of the ancients.

Water LEVEL, that which shows the horizontal line by means of a surface of water or other liquor; founded on this principle, that water always places itself level.

The most simple water level is made of a long wooden trough or canal, whose sides are parallel to the base; so that being equally filled with water, its surface shows the line of level. This is the chorobates of the ancients. See CHOROBATA.

It is also made with two cups fitted to the two ends of a pipe, three or four feet long, about an inch in diameter, by means of which the water communicates from the one to the other cup; and this pipe being moveable on its stand by means of a ball and socket, when the two cups become equally full of water, their two surfaces mark the line of level.

This instrument, instead of cups, may also be made with two short cylinders of glass three or four inches long, fastened to each extreme of the pipe with wax or mastic. Into the pipe is poured some common or coloured water, which shows itself through the cylinders, by means of which the line of level is determined; the height of the water, with respect to the centre of the earth, being always the same in both cylinders. This level, though very simple, is yet very commodious for levelling at small distances.

11 De la Hire's level.

De la Hire's level consists of two vessels filled with water, and communicating with each other by means of one or more tubes. A small cylindrical box made of thin copper or planished tin, and terminating below in an obtuse cone, floats in each of these boxes, which are kept in a vertical position by introducing into the cones a ball of lead or a quantity of mercury. One of the boxes carries the object-glass; and the eye-glass along with the cross wires are fastened into the other, but in such a manner as to be elevated or depressed by sliding in two grooves, in order that the axes of the lenses may be exactly level, which is effected by measuring a base. See *Traite du Nivellement par* M. Picard. The inconveniences attending this instrument arise from the difficulty of bringing the floating eye-glass into the same line with the axis of the object-glass, and of making the boxes settle in such a position that distinct vision may be procured through the telescope; for if the wires in the focus of the eye-glass be out of the axis, or at the smallest distance from the focus of the object-glass, the image will be both indistinct and deformed. In order that De la Hire's level

12 Defects in De la Hire's level.

may

Level.

may be perfect, it is necessary that the boxes should be of the same weight and magnitude, that the boxes which contain the water should be put nearly on a level by means of a plummet, that the same quantity of water should be introduced, and that the object-glass should be kept at the same height with the eye-glass. These conditions, which are requisite to the perfection of the level, are too numerous and to difficult to be attained, to render this instrument of any use where accurate results are required.

13 Couplet's improvement on De la Hire's level.

These defects in De la Hire's level were partly remedied by M. Couplet, by inserting the object-glass and eye-glass into the same tube, and by placing this telescope loosely on two boxes which formerly floated at random on the fluid. He equalized the weight of these boxes by means of a quantity of small shot, and verified the instrument by putting one of the boxes beneath the object-glass, and the other beneath the eye-glass of the telescope. It is evident, however, that the accuracy of Couplet's level depends upon the equal distribution of the small shot contained in the boxes; for if it is distributed unequally, the box will be more depressed on one side than another, and consequently the intersection of the cross wires in the focus of the eye-glass, will either recede from, or approach to the surface of the water, according as the small shot is unequally distributed in the box which supports the eye-glass, or in that which carries the object-glass. Besides this source of error, considerable inconvenience must arise in practice from the want of connection between the telescope and the two boxes upon which it floats.

14 Deparcieux's level. Plate CCXCIII. fig. 1. Fig. 2.

The level of Deparcieux is properly an improvement upon that of Couplet. It consists of two parts, a box ABCD of light wood, in which are placed two vessels of tin EFG, EFG filled with water. These vessels are each 10 inches long, 7 inches wide, and $4\frac{1}{2}$ deep, and communicate by one or more tubes GE. The other part is composed of three tubes M, M, M, and of two boxes L, L, enclosed on all sides, having $8\frac{1}{2}$ inches of length, 6 of breadth, and 4 of depth, and above these are soldered the three tubes. (Fig. 1. is a vertical section, and fig. 2. a horizontal section of the instrument). The two outermost tubes are telescopes from 18 to 36 inches long, pointed in opposite directions to prevent the necessity of turning the level, and are necessary for its adjustment and verification.—A piece of lead weighing about two pounds is soldered to the bottom of each box L, L, and a weight P of half a pound is made to move towards Q or R by the screw RQ, in order to adjust the level by making one of the floating boxes sink deeper in the water than the other. This weight should be fixed to a small tin tube which can move easily within the greater one, and the screw is turned by means of a handle similar to that which is used for winding up a clock. The whole instrument is thus covered with a case *a b* to prevent the wind from agitating the water.

15 Method of adjusting it.

In order to adjust the level, place the box ABCD upon a table, and elevate one end or another by means of wedges till the intersection of the two cross wires in the focus of the eye-glass of one of the telescopes seems to fall upon a very remote object, each of these wires being moveable by screws so that their point of intersection can be varied. Then take the level out of the box ABCD, and invert its position, so that one of the tin boxes EF may occupy the position which the other had before, and look through the other telescope. If the intersection of the wires falls upon the same object, their position is correct, and the axes of the telescopes are parallel; but if it falls at a distance from the object, the point of intersection must be shifted one-half of that distance towards the object, and the same operation repeated till the intersection of the hairs of one of the telescopes covers the same point of the object that is hid by the intersection of the hairs of the other telescope. When this happens, the axes of the telescopes will be exactly parallel.

Level.

The level is then placed upon its stand, which is fixed to the box at K, and a very remote object is examined with one of the telescopes, so as to find the point of it which is hid by the intersection of the wires. The level is then inverted, and the object examined with the other telescope. If the intersection of the wires covers the same point of the object as before, the level is adjusted, and the object is in the line of apparent level passing through the intersection of the wires. But if this is not the case, the weight P towards Q or towards R, according as the point of the object first examined is above or below the intersection of the wires, in order to make the image of the object rise or fall one-half of the distance between the points that are covered by the intersection of the wires in each observation. The operation is then repeated, till the intersection of the wires in both telescopes falls upon the same point of the object, in which case the axes of the telescopes will be exactly level, and the instrument properly adjusted. It is obvious that by moving the weight P from the position which it has when the level is adjusted, the axes of the telescopes will be *inclined* to the line of the level either above or below it according as the weight is moved to one side or another. Hence, by measuring a base with a vertical object at its remote extremity, it may be easily found how many minutes or seconds correspond with a given variation in the position of the weight, merely by measuring the tangents on the vertical object; so that a scale may be engraven on the tube TT which will exhibit the angles of inclination to the line of apparent level, formed by the axes of the telescopes when the weight P has different positions.

16 Keith's mercurial level. Plate CCXCIII. Fig. 3. Fig. 4.

The mercurial level lately invented by the ingenious Alexander Keith, Esq. of Ravelston, is founded on the same principle as the levels of De la Hire, Couplet, and Deparcieux, with this difference, that mercury is employed instead of water. A section of the mercurial level is represented in fig. 3. where A, A are two oblong square cavities communicating by means of the channel MN. BB are two grooves hollowed out of the wood which contain the sights D, D′, fig. 4. when the instrument is not in use. The sight D has a small hole in it, and the other is furnished with a cross hair. They are fixed into two pieces of ivory or hard wood, which are nearly of the same form as the cavities A, A, but a little smaller, so that they may go into these cavities without touching the sides. A quantity of mercury is then introduced into the communicating vessels A, A till they be about half full. The two sights are then placed in the cavities, and float on the horizontal surface of the mercury; consequently (HYDRODYNAMICS, art. 34, 37) if the sights be of the same dimension and weight, a line joining the cross hair in D′ and the small

Level. small hole in D will be level or parallel with the horizontal surface of the mercury. The instrument completely fitted up is represented in fig. 5. where D, D′ are the sights, D being the sight to which the eye is applied. When there is a strong wind the level is covered with a case, in which two holes are left opposite to the sights.—The preceding level might be improved by making the cross hair move up and down with a screw, and by engraving a scale on the side of the square aperture at D′, whose divisions being subdivided by a scale on the circumference of the nut that moves the screw, would indicate to great accuracy the angle of inclination.

Fig. 5.

17 Description of a level upon a new principle, Plate CCXCIV. fig. 1.

The following mode of constructing a level upon a new principle has occurred to the writer of this article. Let AB be a reflecting surface either of glass or water, and let MN be a straight ruler held above this surface; thus it follows from optical principles that the line MN will be perpendicular to the plane AB when the object MN and its image NM′ appear in the same straight line to an eye placed at M. Hence, by the bye, we may ascertain the error of a square, by placing one of its sides upon the surface of a looking glass, and applying the eye to its extremity M; for if it is inaccurate, the image of the side MN will form an angle with MN, thus if *m*N be the side of the square, its image will be N *m*′.

Fig. 2.

—Now let VV be a vessel containing either water or mercury, and let VV be the surface of the fluid. This vessel must be firmly connected with the base CD and also with the vertical plane EF (perpendicular to CD) by means of the cross bars *ab*, *cd*. The telescope AB is fastened to MN, another plane which rises perpendicular to the plane EF, and the plane MN is so connected with EF by means of screws, that its side MN may be made to vary its angle with the horizon, in any direction. The vessel VV, therefore, and the planes EF, CD remain fixed, while the telescope AB and the plane MN can vary their position relative to the other parts of the level. The telescope AB should be so constructed as to answer the purpose of two telescopes. It has an object-glass both at A and B, and also an eye-glass with cross wires at A and B; and these are so fitted into the tube, that when the eye is applied to the end B, the object-glass at B, and the eye-glass at A with its cross hairs, may be turned to one side so as to have distinct vision with the remaining eye-glass at B and the object-glass at A. When the eye is applied to A, the eye-glass at B and the object-glass at A are moved out of the axis of the telescope for the same reason. This contrivance is for the purpose of avoiding the necessity of having two telescopes. The cross hair in the focus of each eye-glass must be made capable of varying their position, so that the point of intersection may be shifted for the purposes of adjustment.

18 Method of adjusting it.

In order to adjust the instrument, place its base CD, upon a table, and move the telescope of the index MN till the image N′M′ is in the same straight line with MN. Then look through the extremity B at a distant object, and mark the point of it which is covered by the intersection of the wires. Insert the whole instrument so that the end A may be at B, adjust the index MN as before, and look through the telescope at the same object. If the intersection of the wires falls upon the same point of the object as formerly, the instrument is properly adjusted. But if not, the intersection of the cross wires in one of the eye-pieces must be varied, as in the adjustment of Deparcieux's level, till it covers the same point of the object that was covered at the first observation. When this happens, the instrument is duly adjusted, and may be used by placing the base CD upon a stand, and adjusting the index MN; for when this is done, the axis of the telescope will be in a line accurately horizontal.

Level.

19 Huygens's level. Plate CCXCII. fig. 11.

Level of Mr Huygens's invention, consists of a telescope *a*, (fig. 11.) in form of a cylinder, going through a ferril, in which it is fastened by the middle. This ferril has two flat branches *bb*, one above, and the other below; at the ends whereof are fastened little moving pieces, which carry two rings, by one of which the telescope is suspended to a hook at the end of the screw 3, and by the other a pretty heavy weight is suspended in order to keep the telescope *in æquilibrio*. This weight hangs in the box 5, which is almost filled with linseed oil, oil of walnuts, or other matter that will not easily coagulate, for more aptly settling the balance of the weight and telescope. The instrument carries two telescopes close and parallel to each other; the eye-glass of the one being against the object-glass of the other, that one may see each way without turning the level. In the focus of the object-glass of each telescope must a little hair be strained horizontally, to be raised and lowered as occasion requires by a little screw. If the tube of the telescope be not found level when suspended, a ferril or ring, 4, is put on it, and is to be slid along till it fixes to a level. The hook on which the instrument is hung is fixed to a flat wooden cross; at the ends of each arm whereof there is a hook serving to keep the telescope from too much agitation in using or carriage. To the said flat cross is applied another hollow one, that serves as a case for the instrument; but the two ends are left open, that the telescope may be secured from the weather and always in a condition to be used. The foot of this instrument is a round brass plate, to which are fastened three brass ferrils, moveable by means of joints whereon are put staves, and on this foot is placed the box.

Fig. 12. marked I, is a balance-level; which being suspended by the ring, the two sights, when *in æquilibrio*, will be horizontal, or in a level.

Fig. 12.

20 Sisson's spirit-level

Spirit-Level. The most accurate levelling instrument, and that possessed of the greatest essential advantages in use, is the spirit-level; which was first constructed by Mr Sisson, and to which some small additions and improvements have been since made. The following is a description of one of the best of these levels, as made by the principal mathematical-instrument makers.

Adams's Graphical Essays Fig. 13.

Fig. 3. is a representation of the instrument mounted on its complete staves. The telescope, ABC, is made from 15 inches to two feet in length, as may be required. It is achromatic, of the best kind, and shows the objects erect. In the focus of the eye-glasses are exceedingly fine cross wires, the intersection of which is evidently shown to be perfectly in the axis of the tube; for by turning it round on its two supporters DE, and looking through the telescope, the intersection of the wires will constantly cut the same part of the object viewed. By turning the screw *a* at the side of the telescope, the object-glass at *g* is moved; and thus the telescope is exactly

Level. ly adapted to the eye. If these cross wires are at any time out of their adjustment, which is discovered by their intersection not cutting the same part of the object during the revolution of the telescope on its axis, they are easily adjusted by means of the four screws *b b b*, placed on the telescope about an inch from the end for the eye. These screws act in perpendicular directions to one another, by unscrewing one and tightening the other opposite to the wire, so that if connected with it, it may be moved either way at pleasure; and in this manner the other wire perpendicular to it may be moved, and thus the intersection of the wires brought exactly in the axis of the tube.

To the telescope is fixed, by two small screws *c c*, the level tube containing the spirits, with a small bubble of air: This bubble of air, when the instrument is well adjusted, will settle exactly in the same place, in or near the middle of its tube, whether the telescope be reversed or not on the supporters, which in this case are kept unmoved.

It is evident, that the axis of the telescope, or the intersection of the wires, as before shown, must in this case be truly level. In this easy mode of adjustment consists the improvement of the instrument; and it is hereby capable of being adjusted by only one station and one object, which will at the same time determine it to be in a true level. If by change of weather, accident, or any other cause, the instrument should have lost its level or adjustment, it may thus be readily restored and readjusted at the first station; which is an advantage possessed by none of the instruments formerly made. The two supporters DE, on which the level rests and turns, are shaped like the letter Y. The telescope rests within the upper part of them; and the inner sides of each of these Y's are tangents to the cylindric tube of the telescope, which is turned to a true cylinder, and each touches it only at one place.

The lower ends of these supporters are inserted into a strong brass plate FE, so as to stand perpendicularly on it. One of these is kept fast by a tightening screw G, and to the other is applied a fine threaded screw H, to adjust the tube, when on its supporters, to a true level. To the supporter D is sometimes applied a line of tangents as far as 12 degrees, in order to take an angle of depression or elevation to that extent. Between the supporters is also sometimes fixed a compass-box I, divided into 360 degrees, and again into four 90°; having a centre pin and needle, and trigger, at *d*, to throw off the needle from the centre when not used; so as to constitute a perfect circumferentor, connected with all the foregoing improvements. This plate is fixed on a conical brass ferrule K, which is adapted to the bell-metal frustum of a cone at top of the brass head of the staves, having a ball and socket, with three bell-metal joints, two strong brass parallel plates LL, four screws *c c c c* for adjusting the horizontal motion, a regulating screw M to this motion, and a fastening screw N to tighten it on the cone when necessary. The fastening screw N, and the regulating screw M, by which the whole instrument is moved with accuracy through a small space in a horizontal direction, was an addition of Mr Ramsden's.

The manner of adjusting the spirit-level at the first station.—The whole level being now placed steadily on its staves, it must be rendered parallel to the axis of the telescope before you adjust the horizontal motion. Level. For this purpose the telescope must be placed in a line with two of the screws *e e*, and then levelled by these till the bubble of air in the spirit-tube keeps its position in the middle, while turned about to three points, making nearly right angles at the centre to one another.

The horizontal motion being thus adjusted, the rims *f f* of the Ys are to be opened, the telescope taken off and laid the contrary way upon the supporters. If the bubble of air then rests exactly the same, the level and telescope are adjusted rightly to one another; but if the bubble does not remain the same, the end to which the air bubble goes must be noticed, and the distance of it from the telescope altered; correcting one half the error by the screws *c c*, and the other half by the screws *e e*.

Now the intersection of the wires being directed to any distant object, it may be one of the vanes of the staves hereafter described: if they continue to be against it precisely while the telescope is turned round on its Ys, it proves, as before mentioned, that the axis of the telescope coincides with the intersection of the wires, and that the instrument will give the true level direction.

The operation of levelling being of a very accurate and important nature, and the best instrument when out of its adjustment being of little use, it is quite necessary that every person using such an instrument should have it readily in his power to correct it; and the one above described appears to be the best adapted for that purpose of any hitherto described.

Theory of the Spirit Level.

Let ABC, fig. 3. be a vessel of glass hermetically sealed, its upper surface ABC being the arch of a circle whose centre is O. This vessel contains a quantity of spirit of wine or alcohol, whose level or surface is NEN. The line VOT intersecting the arch N *n* in B, and extending to T, which is supposed to be the centre of the earth. Therefore, (HYDRODYNAMICS, art. 36.) the surface NE *n* is the arch of a circle whose centre is T. XYZ is a right line fixed with respect to the radius B, and consequently with regard to the vessel ABCD. Now let the radius O *n* = *r* T *n* = R, and the arch B *b* = *m*. Plate CCXCIV. fig. 3.

In the present situation of the vessel the vertical line VT coincides with the radius BO; but if the position of the vessel is altered till BO takes the situation *bo*, it will then make with VT an angle O *c* T, which we shall suppose 1″, and which may be supposed equal to the angle O *b* T, as BT may be considered as parallel to *b* T. The angle XVT will now become X′V′T, and will vary by a quantity equal to O *b* T. Then by taking NN′, and *n n′* equal to B *b*, the points N′ and *n′* will be determined, which in the new position of the vessel become the points in which the superior surface of the fluid meets the arch ABC.

Now, calling the angle BT *b* = φ, we have (Euclid, book i. prop. 32.) BO *b′* = $\varphi + 1''$, and $\varphi + 1'' : \varphi =$ *b* T : *b* O = R : *r*, and consequently $r = \frac{R\varphi}{\varphi + 1''}$, and substituting instead of 1″ and φ arcs of the same value, having unity for radius, the product R φ will be equal to the arc E *e*, for which we may take B *b* or *m*; and

Level. since (see *Tables de Berlin*, tom. iii. p. 270.) $1'' =$ 0.000004848137, we shall have

$$r = \frac{m}{0.000004848137 + \varphi} = \frac{m}{0.000004848137}$$, for BO will be very small compared with ET, and therefore the angle ET*e* may be neglected in relation to the angle O*e*T.

Let us suppose for the sake of example that B*b* or its equals NN′, *n n*′, is one-tenth of an inch or 0.0083333 of a foot, thus we shall have the length of the radius BO, or $r = \frac{0.008333333}{0.000004848137} = 1736$ feet nearly; thus a derangement of the vessel ABC which makes the radius BO, or the line XZ, vary a minute of a degree, will make each of the points N, *n* describe a space of 60 tenths or 6 inches, along the arc ABC, that is, the same space which the extremity of a plumb line 1736 feet long, would describe when it moved through one minute of a degree. Hence we are able to render extremely sensible the smallest changes of position in the line XZ. The vessel ABC is nothing more than a spirit level, the line XZ representing the axis of the telescope which is attached to that instrument, as shewn in fig. 13. where *c c* is the level, and

Plate CCXCII. CA the telescope. The glass vessel, which is ground in the inside so as to be a portion of a circle of considerable radius, is almost entirely hid by the cylinder of brass which contains it, excepting a small part which appears in the centre of the cylinder; and the instrument must be so adjusted, that when the bubble of air is in the middle of the glass tube, the axis of the telescope, the line XZ, is truly horizontal.

Plate CCXCIV. From these remarks, it would seem that a spirit level will measure small angles with the same accuracy as a sector whose radius is equal to BO, fig. 3. the radius of the curvature of the glass tube or of a plumb line of the same length; but there are some causes which diminish its accuracy. When the bubble of air has been brought to the centre of the glass tube, and when the tube, after being deranged, is brought to the very same position, we cannot be sure that the bubble of air will return to the very centre of the tube. This irregularity is produced by the friction of the included fluid against the sides of the tube, and depends on the magnitude of the bubble and the quantity of fluid. In a good level, where the bubble moves about five liues for a minute of inclination, this uncertainty does not exceed half a line, which may be ascertained by pointing the telescope to any object. The coincidence of a plumb line with a particular mark will, on account of the insensible oscillation of the thread, leave an uncertainty of about $\frac{1}{10}$ of a line, that is, about double the uncertainty which is left by the index of a sector, which may be estimated at about 100dth of a line. But the radius of a tube, whose bubble moves five lines for a minute of inclination, will be found by a preceding formula to be about 358 feet; and therefore to know the length of a plumb line which will give the same precision, we have $\frac{1}{5} : \frac{1}{30} = 358 : 14.32$ feet, the length required.

On the Construction of Levels.

Levels are commonly made of glass tubes in the state they are obtained at the glass-house. Of these the straightest and most regular are selected and examined, by filling them nearly with spirit of wine, and ascertaining by trial that side at which the bubble moves most regularly, by equal inclinations of the instrument upon a stage, called the bubble trier, which is provided with a micrometer screw, for that purpose. The most regular side is chosen for the upper part of the instrument, the others being of little consequence to its perfection. Spirit of wine is used, because it does not freeze, and is more fluid than water. Ether is better, because still more fluid (A). The tube and the bubble must be of considerable length. The longer the bubble, the more sensible it is to the smallest inclination. A very small bubble is scarcely sensible, appears as if attached to the glass, and moves but slowly.

In the use of a level of this kind, constructed by Sieur Langlois, it was remarked, than when it was properly set, in the cool of the morning, it was no longer so in the middle of the day, when the weather became hot; and that when it was again rectified for the middle of the day it became false in the evening, after the heat had diminished. The bubble was much longer in cold than in hot weather, and when longer it was too much so, and could not be kept in the middle of the tube, but stood a little on the one or the other side, though the inclination was precisely the same. These defects were small, and such as claim the notice of careful observers only; but they appeared of too much consequence not to produce a wish to remedy them. It was observed, that they arose from irregularities in the interior surface of the tube; and by examining a great number of tubes, selected for levels of the same kind, there was reason to conclude that all these levels would have more or less of the same defects, because there was not one tube of a regular figure within. They were at best no otherwise cylindrical than plates of glass from the glass-house can be said to be plane before they are ground. The irregularities were easily discernible.

It was therefore concluded, that it would be adviseable to grind the inner surfaces of the tubes, and give them a regular cylindrical or rather spindle form, of which the two opposite sides should correspond with portions of circles of very long radius. To accomplish this, a rod of iron was taken, of twice the length of the glass tube, and on the middle of this rod was fixed a stout tube of copper (cuivre) of the same length as the tube of glass, and nearly equal in diameter to the bore. The rod was fixed between the centres of a lathe, and the glass gently rubbed on the copper cylinder, with fine emery and water, causing it to move through its whole length. The glass was held by the middle, in order that it might be equally ground, and was from time to time shifted on its axis, as was also the copper cylinder, in order that the wear might be everywhere alike. The operation had scarcely commenced, before

(A) If the ether be not well rectified, it is subject to two great inconveniences in this use. If the tube be very slightly agitated, the ether divides itself into several bubbles, which employ a considerable time before they unite. In the second place, as this ether is decomposed in the course of time, it deposits very small drops of oil, which adhere to the tube, stop the motion of the bubble, and render the level very faulty. The ether is besides more fluid when rectified and freed from a saponaceous matter which causes its bad effects.

Level. before the tube broke; and several others experienced the same misfortune, though they had been well annealed. It was supposed that the emery which became fixed in the copper might contribute to split the glass, each grain continuing its impression with the same point, in the same right line, which in some instances might be as well disposed to cut the glass as diamond. A cylinder of glass was substituted instead of the copper, and the emery rolling itself on the surface of the last, instead of fixing itself, had better success; so that every part of the circumference of the tube and the cylinder touched each other through their whole length. The same operation was continued, using finer and finer emery to smooth the tube, and prepare it for polishing; after which the tube and cylinder having been well washed, thin paper was pasted round the cylinder, and the paper was very equally covered with a small quantity of Venice tripoli. The tube was then replaced and rubbed as before, till it had acquired a polish.

A level thus ground, may be either of the proper sensibility, or be too much or too little sensible. It will be too sluggish, if before grinding, exclusive of the irregularities of the tube, its diameter should much exceed in the middle of the length the diameter of the extremities; or it will be too sensible if this diameter should not sufficiently exceed the other; or, lastly, if the middle diameter be smaller than that of the extremes, the bubble will be incapable of continuing in the middle, but will, in every case, either run to one or the other end, or be divided into two parts.

To correct these defects, and to give the instrument the required degree of perfection, it is proper to examine its figure before the grinding is entirely finished. For this purpose, after cleaning it well, a sufficient quantity of spirit of wine must be put into it; and secured by a cork at each end. The tube must then be placed on the forks or Y's of a bubble trier, and its sensibility, or the magnitude and regularity of the space run over by the bubble by equal changes of the micrometer screw, must be ascertained. If the run or spaces passed over be too great, they may be rendered smaller by grinding the tube on a short cylinder; but if they be too short, they may, on the contrary, be enlarged, by grinding on a longer cylinder. It is necessary, therefore, to be provided with a number of these cylinders of the same diameter, but of different lengths, which it is adviseable to bring to a first figure, by grinding them in a hollow half cylinder of brass. By means of these it will be easy to regulate the tube of the level to any required degree of sensibility, after which the tube may be very quickly smoothed and polished.

The level which was thus ground is one foot in length; and the cylinder on which it was first worked is of the same length. When it was finished it was found to be too sensible. It was therefore worked on another cylinder of between nine and ten inches long, which diminished its sensibility so far, that the bubble, which is nine inches and four lines long, at the temperature of 16° of Reaumur above freezing, is carried from the middle of the tube exactly one line for every second of a degree of inclination. This degree of sensibility was thought sufficient; but any greater degree which may be required may be obtained by the process here described.

It may be remarked that a glass tube is very subject to be split by grinding its inner surface; the same tube will not be endangered by grinding its external surface even with coarse emery; and when once the polish of the inside is ground off, the danger is over, and coarser emery may be used without fear. Thick glass is more subject to this misfortune than thinner. The coarsest emery made use of in grinding the tube here spoken of was sufficiently fine to employ one minute in descending through the height of three inches in water. Level, Levelling.

LEVELLING may be defined, the art which instructs us in finding how much higher or lower any given point on the surface of the earth is than another; or, in other words, the difference in their distance from the centre of the earth.

The practice of levelling therefore consists, 1. In finding and marking two or more points that shall be in the circumference of a circle whose centre is that of the earth. 2. In comparing the points thus found with other points, to ascertain the difference in their distances from the earth's centre.

With regard to the theory of levelling, we must observe that a plumb line, hanging freely in the air, points directly towards the centre of the earth; and a line drawn at right angles, crossing the direction of the plumb line, and touching the earth's surface, is a true level only on that particular spot; but if this line which crosses the plumb be continued for any considerable length, it will rise above the earth's surface, and the apparent level will be above the true one, because the earth is globular; and this rising will be as the square of the distance to which the said right line is produced; that is to say, however much it is raised above the earth's surface at one mile's distance, it will rise four times as much at the distance of two miles, nine times at the distance of three, &c. This is owing to the globular figure of the earth; and this rising is the difference betwixt the true and apparent levels; the real curve of the earth being the true level, and the tangent to it the apparent level. Hence it appears, that the less distance we take betwixt any two stations, the truer will be our operations in levelling; and so soon does the difference betwixt the true and apparent levels become perceptible, that it is necessary to make an allowance for it if the distance betwixt the two stations exceeds two chains in length.

Let BD, fig. 4. be a small portion of the earth whose centre is A, then (HYDRODYNAMICS, art. 36.) all the points of this arch will be on a level. But a horizontal line BC meeting the vertical line AD in C, will be the apparent level at the point B; and therefore DC is the difference between the apparent and true level at the point B. The distance CD, therefore, must always be deducted from the observed heights, before we can have the true differences of level, or the difference between the distances of two points from the surface of the earth, or from the centre of curvature A. Difference between the apparent and true level, Plate CCXCIV.

In order to find an expression of DC, we have (Euclid, book i. prop. 47.) $\overline{AC}^2=\overline{AB}^2+\overline{CB}^2$, and calling $AB=R$, $BC=m$, and $CD=x$, and considering that $AC=R+x$, we have the equation $R^2+2Rx+x^2=m^2+R^2$. But as the value of the arc DB is always sufficiently small, that CD may be regarded as sufficiently small when compared with AD or AB, we may safely consider x^2 as nothing in the preceding equation, which in that case becomes $x=\frac{m^2}{2R}$. The

Levelling. mean value of R may be considered as 19630764 feet, and therefore the value of x may be deduced from the equation $x=\frac{m^2}{2\times 19630764}=\frac{m^2}{39261528}$, m being expressed in feet. Hence it is obvious, that the depress of the true level is as the square of the distance; and if this distance be 6000 feet, we shall have $x=0.91698$ of a foot $=11$ inches.

The preceding formula supposes the visual ray CB to be a straight line; whereas, on account of the unequal densities of the air at different distances from the earth, the rays of light are incurvated by refraction. This effect has been considered in the following table, which contains the difference between the apparent and true level, both when the refraction of the atmosphere is omitted, and taken into account. Levelling.

TABLE *shewing the Difference between the True and Apparent Levels, whether taking the Terrestrial Refraction into account or not, and marking the Errors that arise when this Refraction is omitted.*

Distance in feet.	Elevation of the apparent level above the true level expressed in feet.		Difference between the two elevations.	Distance in feet.	Elevation of the apparent level above the true level expressed in feet.		Difference between the two elevations.
	No allowance made for terrestrial refraction.	Allowance made for terrestrial refraction.			No allowance made for terrestrial refraction.	Allowance made for terrestrial refraction.	
300	0.0023	0.0020	0.0003	6300	1.0000	0.8571	0.1429
360	0.0035	0.0030	0.0005	6600	1.1088	0.9504	0.1584
420	0.0046	0.0040	0.0006	6900	1.2141	1.0407	0.1734
480	0.0058	0.0050	0.0008	7200	1.3200	1.1314	0.1886
540	0.0075	0.0064	0.0011	7500	1.4323	1.2277	0.2046
600	0.0092	0.0081	0.0011	7800	1.5492	1.3279	0.2213
720	0.0133	0.0114	0.0019	8400	1.7963	1.5397	0.2566
840	0.0179	0.0154	0.0025	9000	2.0625	1.7678	0.2947
900	0.0208	0.0178	0.0030	9600	2.3466	2.0257	0.3209
960	0.0237	0.0205	0.0032	10200	2.6487	2.2989	0.3498
1080	0.0295	0.0253	0.0042	10800	2.9699	2.5456	0.4243
1200	0.0370	0.0317	0.0053	11400	3.3090	2.9363	0.4727
1320	0.0445	0.0482	0.0063	12000	3.6667	3.1431	0.5236
1440	0.0527	0.0451	0.0076	12600	4.0422	3.4648	0.5774
1500	0.0579	0.0496	0.0083	13200	4.4363	3.8029	0.6334
1560	0.0625	0.0536	0.0089	13800	4.8489	4.1562	0.6927
1680	0.0723	0.0620	0.0103	14400	5.2800	4.5258	0.7542
1800	0.0827	0.0709	0.0118	15000	5.7292	4.9107	0.8185
1920	0.0937	0.0803	0.0134	15600	6.1967	5.3115	0.8852
2040	0.1059	0.0908	0.0151	16200	6.6823	5.7277	0.9546
2100	0.1128	0.0967	0.0161	16800	7.1865	6.1597	1.0266
2160	0.1185	0.1012	0.0168	17400	7.7089	6.6076	1.1013
2280	0.1325	0.1136	0.0189	18000	8 2500	7.0714	1.1786
2400	0.1470	0.1260	0.0210	18600	8.8090	7.5506	1.2584
2520	0.1620	0.1403	0.0217	19200	9.3866	8.0456	1.3410
2640	0.1777	0.1523	0.0254	19800	9.9826	8.5565	1.4261
2700	0.1875	0.1607	0.0268	20400	10.6105	9.0947	1.5158
2760	0.1944	0.1667	0.0277	21000	11.2292	9.6250	1.6042
2880	0.2112	0.1810	0.0302	21600	11.8796	10.1825	1.6971
3000	0.2292	0.1964	0.0328	22200	12.5491	10.7564	1.7927
3120	0.2483	0.2128	0.0355	22800	13.2367	11.3457	1.8910
3240	0.2674	0.2306	0.0367	23400	13.9421	11.9504	1.9917
3300	0.2772	0.2376	0.0396	24000	14.6667	12.5714	2.0953
3360	0.2876	0.2465	0.0411	24600	15.4091	13.2078	2.2013
3480	0.3084	0.2644	0.0440	25200	16.1701	13.8601	2.3100
3600	0.3299	0.2827	0.0472	25800	16.9490	14.5278	2.4212
3900	0.3871	0.3318	0.0553	26400	17.7465	15.2113	2.5352
4200	0.4490	0.3849	0.0641	27000	18.5625	16.9107	2.6518
4500	0.5156	0.4420	0.0736	27600	19.3964	16.6255	2.7709
4800	0.5868	0.5030	0.0838	28200	20.2494	17.4566	2.8928
5100	0.6620	0.5675	0.0945	28800	21.1198	18.1027	3.0171
5400	0.7425	0.6364	0.1061	29400	22.0092	18.8651	3.1441
5700	0.7947	0.6726	0.1121	30000	22.9167	19.6431	3.2736
6000	0.9167	0.7857	0.1310	36000	33.0000	28.2857	4.7143

The

Levelling. The following is a simple rule for determining the depression of the true level in the practice of levelling.

"Multiply the number of Gunter's decimal statute chains that are contained in length between any two stations where the levels are to be taken by itself, and the product arising therefrom again by 124, which is a common multiplier for all manner of distances for this purpose on account of the earth's curvature: then divide the second product arising therefrom by 100,000; or, which is also the same, with the dash of the pen cut off five figures on the right hand side of the product, and what remains on the left side is inches, and the five figures cut off decimal parts of an inch."

The following is *A Table of Curvature of the Earth*, and shows the quantity below the apparent level at the end of every number of chains to 100.

Chains.	Inches.	Chains.	Inches.	Chains.	Inches.	Chains.	Inches.
1	0.00125	14	0.24	27	0.91	40	2.09
2	0.005	15	0.28	28	0.98	45	2.28
3	0.01125	16	0.32	29	1.05	50	3.12
4	0.02	17	0.36	30	1.12	55	3.78
5	0.03	18	0.40	31	1.19	60	4.50
6	0.04	19	0.45	32	1.27	65	5.31
7	0.06	20	0.50	33	1.35	70	6.12
8	0.08	21	0.55	34	1.44	75	7.03
9	0.10	22	0.60	35	1.53	80	8.00
10	0.12	23	0.67	36	1.62	85	9.03
11	0.15	24	0.72	37	1.71	90	10.12
12	0.18	25	0.78	38	1.80	95	11.28
13	0.21	26	0.84	39	1.91	100	12.50

Levelling is either simple or compound. The former is when the level points are determined from one station, whether the level be fixed at one of the points or between them. Compound levelling is nothing more than a repetition of many simple operations.

An example of simple levelling is given Plate CCXCV. fig. 1. where AB are the station points of the level; CD the two poiuts ascertained. Let the height

		Feet.	Inches.
From A to C be	-	6	0 0
From B to D be	-	9	0 0
The difference	-	3	0 0

shows that B is three feet lower than A.

If the station-points of the level are above the line of sight, as in fig. 2. and the distance from A to C be six feet, and from B to D nine feet, the difference will still be three feet which B is higher than A.

As an example of compound levelling, suppose it were required to know the difference of height between the point A on the river *Zome*, and N on the river *Belann*, fig. 3. (As our author could find no satisfactory examples in any English author, he copied this and the following ones from M. Le Feburc). In this operation stakes should be driven down at A and N, Levelling. exactly level with the surface of the water; and these stakes should be so fixed, that they may not be changed until the whole operation be finished: a plan of the ground between the two rivers should then be made, by which it will be discovered, that the shortest way between the rivers is by the dotted line AC, CH, HN; from whence also the number of stations necessary to be taken will be determined. The operator will also be able to distribute them properly according to the nature and situation of the ground. In the figure, 12 stations are marked. Stakes ought to be driven in at the limits of each station, as A, B, C, D, &c. They ought to be about two or three inches above the ground, and driven 18 inches into it. Stakes should also be driven in at each station of the instrument, as 1, 2, 3, 4, &c.

The operation may be begun in the following manner. Let the first station be at 1, equally distant from the two points A and B, which themselves are distant 166 yards. Write down then in one column the first limit A; in another, the number of feet, inches, and tenths; with the points of sight indicated on the station-staff at A, viz. 7. 6. 0. In the third column, the second limit B; in the fourth, the height indicated at the station-staff B, viz. 6. 0. 0. Lastly, in the fifth column, the distance from one station-staff to the other, which in this case is 166 yards. Remove now the level to the point marked 2, which is in the middle between B and C, the two places where the station-staves are to be held; observing that B, which was the second limit in the former operation, is the first in this. Then write down the observed heights as before; in the first column B; in the second, 4. 6. 0.; in the third, C; in the fourth, 5. 6. 2.; in the fifth 560, the distance between B and C.

It being impossible, on account of the inequality of the ground at the third station, to place the instrument in the middle between the two station-staves, find the most convenient point as at 3; then measure exactly how far this is from each station-staff, and you will find that from 3 to C is 160 yards; from 3 to D 80 yards; and the remainder of the operation will be as in the preceding station.

In the fourth operation, we must endeavour to compensate for any error which might have happened in the last. Mark out, therefore, 80 yards from the station-staff D to the point 4; and 160 yards from 4 to E; and this must be carefully attended to, as by such compensations the work may be much facilitated. Proceed in the same manner with the eight remaining stations, observing to enter every thing in its proper column: and when the whole is finished, add the sums of each column together, and then subtract the lesser from the greater; the difference, which in the present case is 5. 4. 8. shows the ground at N to be thus much lower than the ground at A.

To obtain a section of this level, draw the dotted line *o o*, fig. 4. either above or below the plan; which may be taken for the level or horizontal line. Let fall then perpendiculars upon this line from all the station-points and places where the station staves were fixed. Beginning now at A, set off 7 feet 6 inches upon the line from A to *a*: for the height of the level point determined on the staff at this place, draw a line through

Levelling. a parallel to the dotted line $o\,o$, which will cut the third perpendicular at b, the second station-staff. Set off from this point downwards six feet to B, which shows the second limit of the first operation; and that the ground at B is one foot six inches higher than at A: place your instrument between these two lines at the height of the level line, and trace the ground according to its different heights. Now set off, on the second station-staff B, four feet six inches to C, the height determined by the level at the second station: and from C draw a line parallel to $o\,o$, which will cut the fifth perpendicular at d, the third station-staff. From this point set off 5 feet 6 inches $\frac{7}{10}$ downwards to C, which will be our second limit with respect to the preceding one, and third with respect to the first. Then draw your instrument in the middle between B and C, and delineate the ground with its inequalities. Proceed in the same manner from station to station, till you arrive at the last N, and you will have the profile of the ground over which the level was taken.

This method answers very well where only a general profile of the different stations is required; but where it is necessary to have an exact detail of the ground between the limits, we must then go to work more particularly. Suppose, therefore, the level to have been taken from A to N by another route, but on more uniform ground, in order to form a canal marked O, P, Q, R, S, T, U, X, Y. Draw at pleasure a line Z, Y, fig. 5. to represent the level, and regulate the rest; then let fall on this line perpendiculars to represent the staves at the limits of each station, taking care that they be fixed accurately at their respective distances from each other. The difference between the extreme limits, in this case, ought to be the same as in the former, viz. 5 feet 4 inches $\frac{6}{10}$. Set off this measure upon the perpendicular o the first limit; and from o, prolonging the perpendicular, mark off at a the height determined at the first station-staff; then do the same with the second and third, and so on with the following, till this part of the work is finished; there remains then only to delineate in detail the ground between the station-staves, the distances in this example being assumed larger on account of the detail.

To obtain the section of the ground between O and P, place your instrument at one of the limits, as P, fixing it so that the cross hairs may answer to the point C; then look towards the first limit o, raising or depressing the vane till it coincides with the intersection of the cross hairs; and the line of sight from one point to the other will mark the level or horizontal line.

To set off the height of the brink of the river above the first limit, drive a stake down close to the ground at a; and place your station-staff upon it, observing where the hairs intersect the vane, which will be at 4 feet 10 inches; then laying off upon the line $o\,z$ the distance from the first to the last stake, let fall from thence a perpendicular, and set off thereon 4. 10. 0. to a, which gives the height at the first stake; or, which is the same, the height from the edge of the river above the surface of the water, as is evident from the section. Drive a second stake at 6, in a line between the limits; place the station-staff upon this stake, and observe the height 4. 6. intersected by the cross hairs, the instrument still remaining in the same situation. Set off on the level line the distance from the first stake a to the second b: and then let fall a perpendicular, and Levelling. mark upon it 4. 6 to b, which gives the height of the ground at this place.

The small hollow c is marked out by driving down a third stake even with the ground, in the middle of it at c; but the exact distance of the second stake b from the third c, must be marked upon the level line: then let fall a perpendicular from c, and set off upon it 6. 8. 0, pointed out by the cross hairs on the staff, which determines the depth of the hollow, as appears from the figure. As the distances between the stakes are now very short, they can easily be marked by the operator, who can settle any little inequalities by a comparison with those already ascertained. Proceed thus with the other stations till you arrive at the last, and you will always obtain an accurate section of your work; by which it is easy to form a just estimation of the land to be dug away, in order to form the canal, by adding the depth to be given to it.

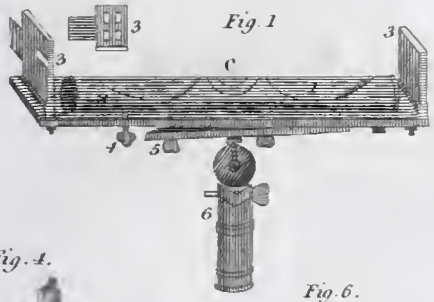
Fig. 6. gives an example of compound levelling, where the situation is so steep and mountainous, that the staves cannot be placed at equal distances from the instrument, or where it is even impossible to make a reciprocal levelling from one station to the other.—Thus suppose the point K to be the bottom of a bason where it is required to make a fountain, the reservoir being at A; so that, in order to know the height to which the jet d'eau will rise, it is necessary to know how high the point A is above K.

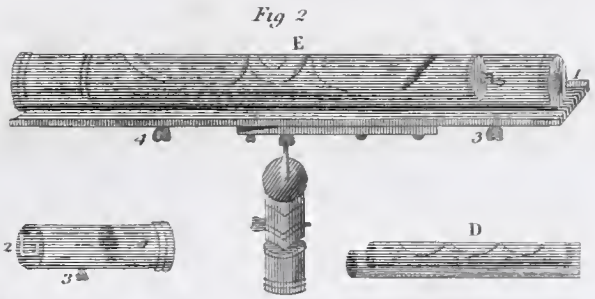
In great heights such as this, it will be necessary to proceed by small descents, as from A to D. The instrument must be adjusted with all possible care; and it will even be proper, in some part of the work, to use a smaller instrument. The following is a table of the different operations used in making this level, it having been taken from M. le Febure's practice.

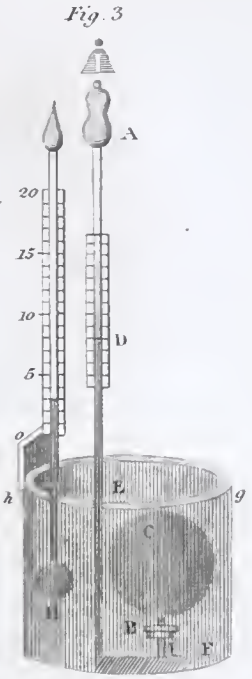
	Feet.	In.		Feet.	In.	Yards.
A	21	6	C	0	9	90
C	4	3	D	0	3	40
D	3	9	E	16	3	350
E	5	0	F	17	9	250
F	10	6	G	5	0	375
G	5	0	H	19	0	300
H	5	0	K	47	3	1000
	55	0		106	3	2405

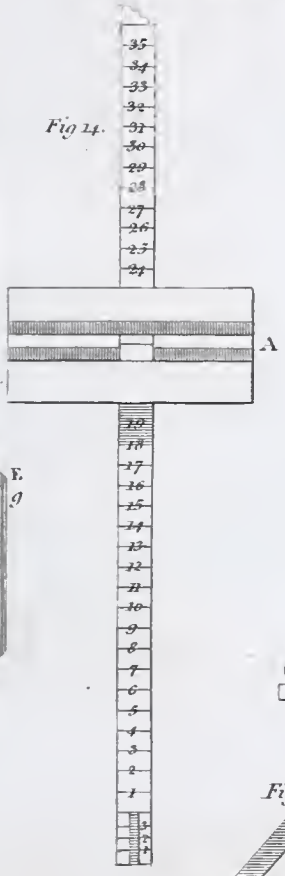
In this case only two levellings are made between A and D, though more would have been necessary; but they are omitted to avoid confusion. In the fourth station the height found was 16 feet 8 inches; but on account of the great length, it was requisite to reduce the apparent level to the true one, which is always necessary where the length is considerable. At the last limit we get the height from N to o; then from o to I; from I to K, fig. 7. &c.; all which added together, and then corrected for the curvature, gives 47 feet 3 inches. Now, by adding each column together, and subtracting one from the other, we have 51 feet 9 inches for the height which the point A is above the bottom of the bason, and which will cause the jet d'eau to rise about 45 feet. The general section of this operation is shown at fig. 7. 8.

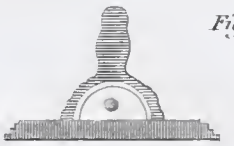
but

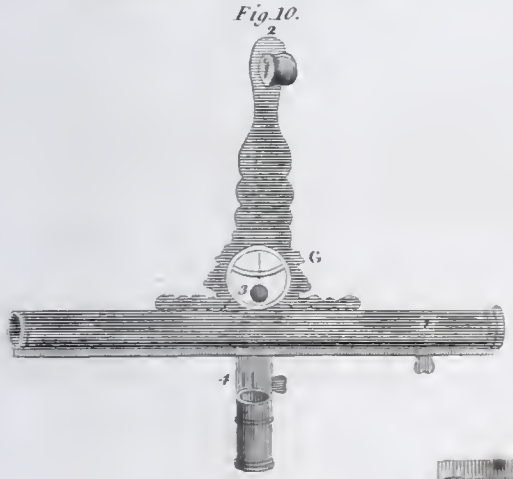


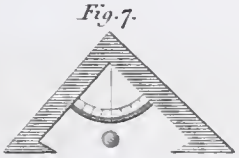


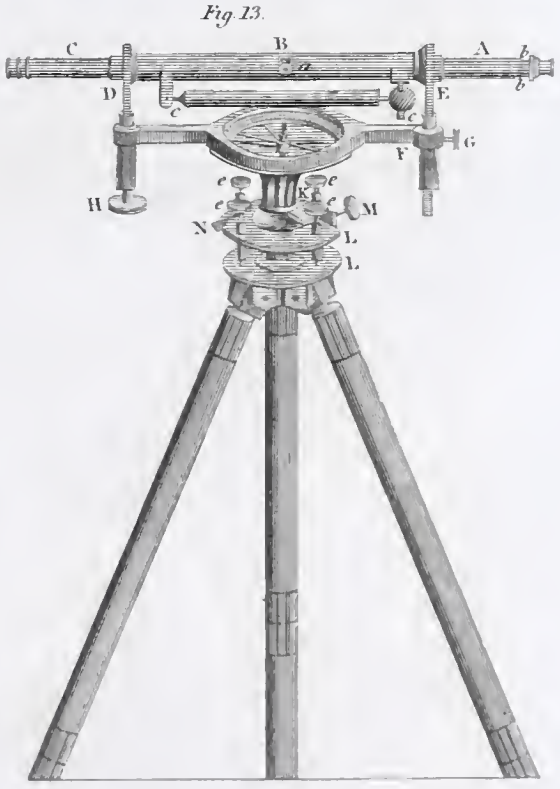












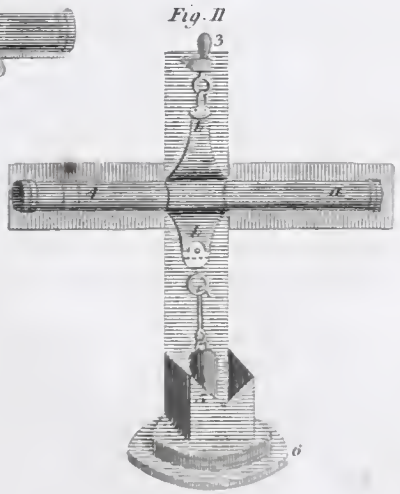


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Fig. 1.

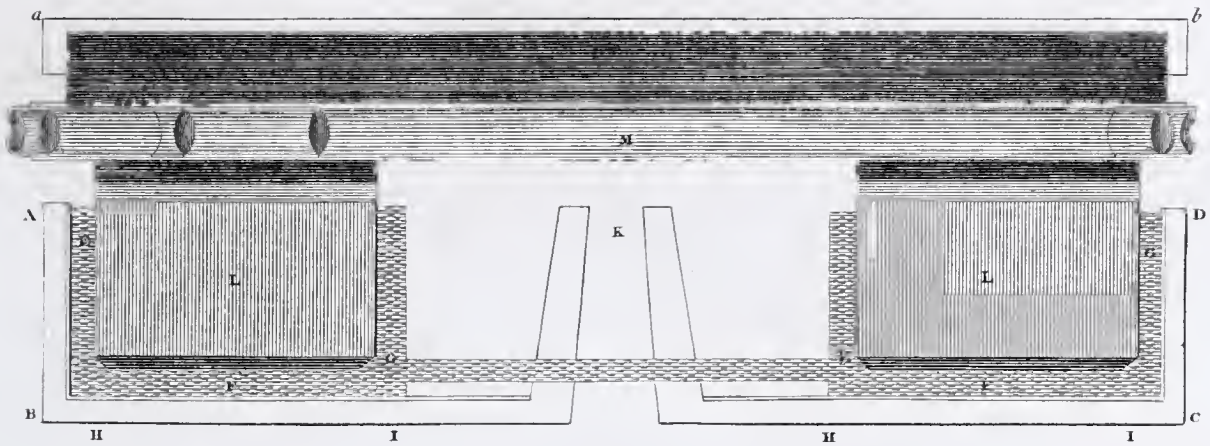

Fig. 2.

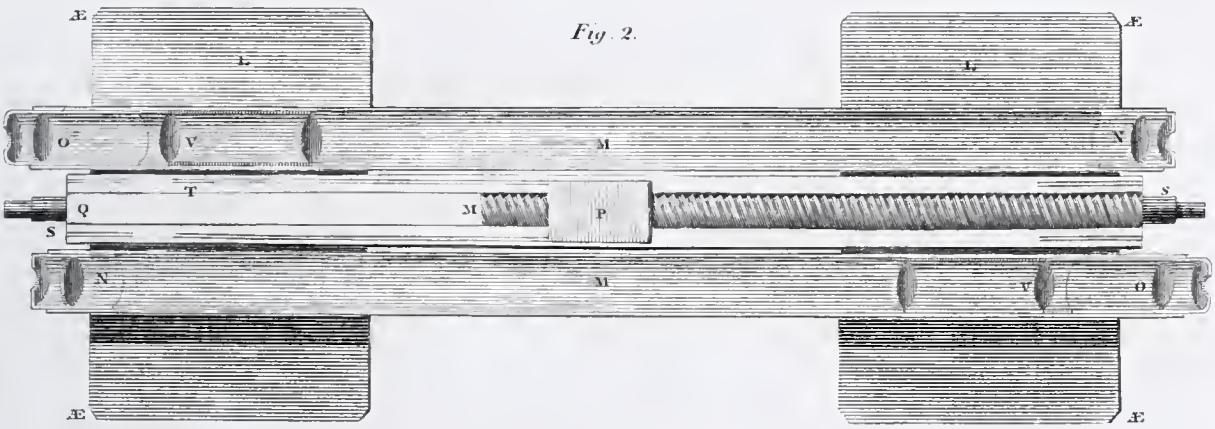

Fig. 3.

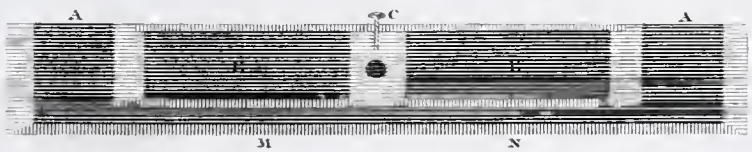

Fig. 4.

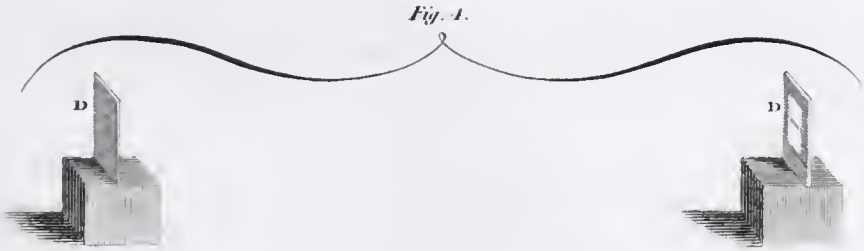

Fig. 5

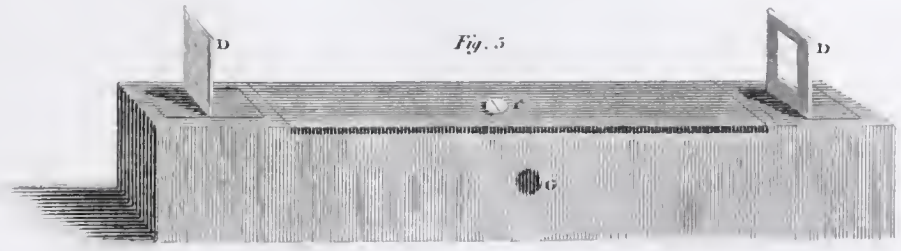

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Fig 4.

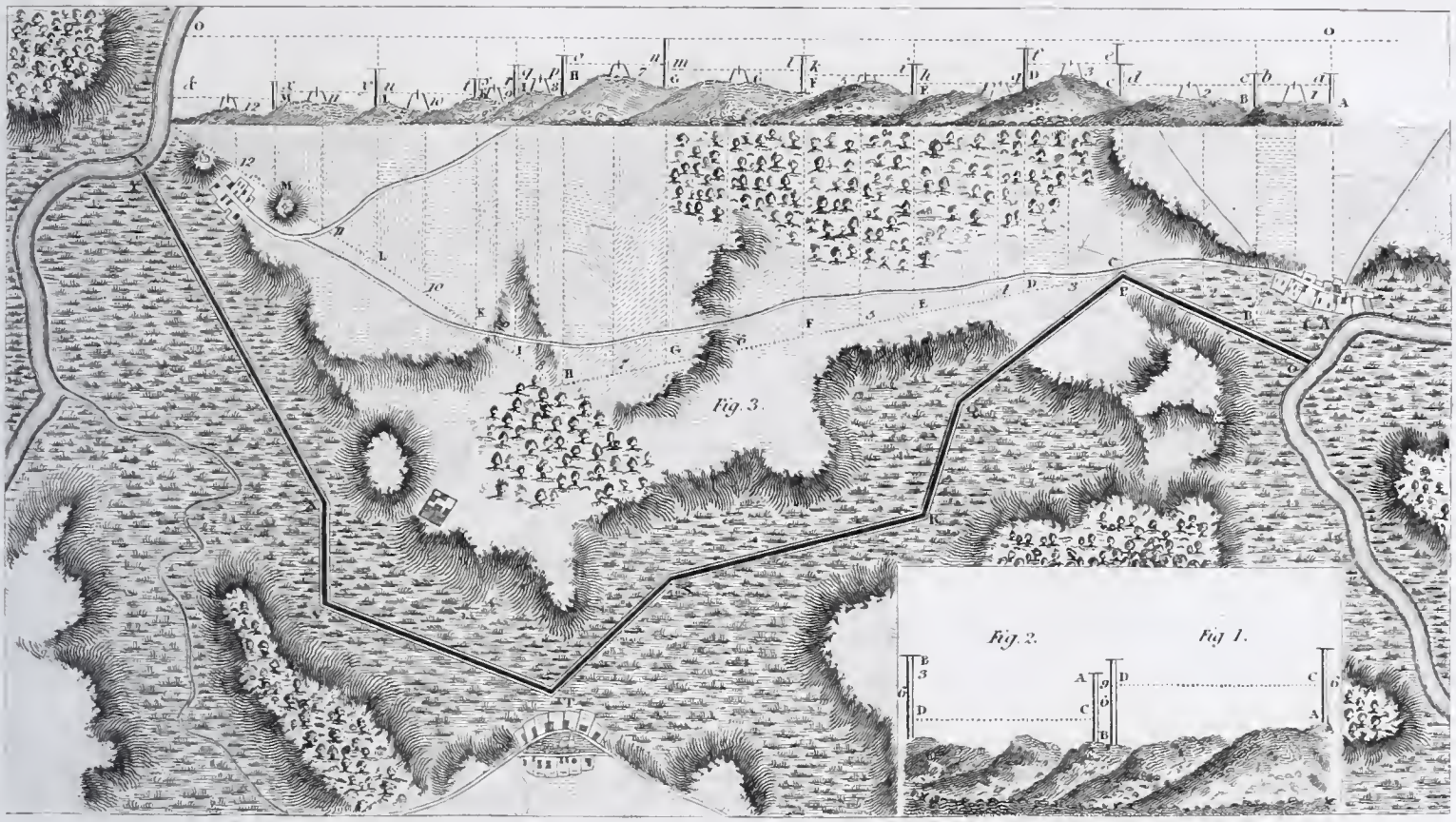

Fig. 3.

Fig. 2.

Fig. 1.

Fig. 5.

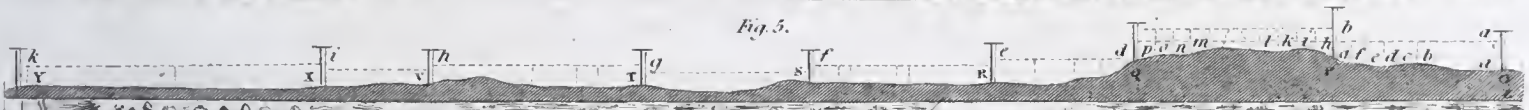

Fig. 6.

PROFILE

Fig. 8.

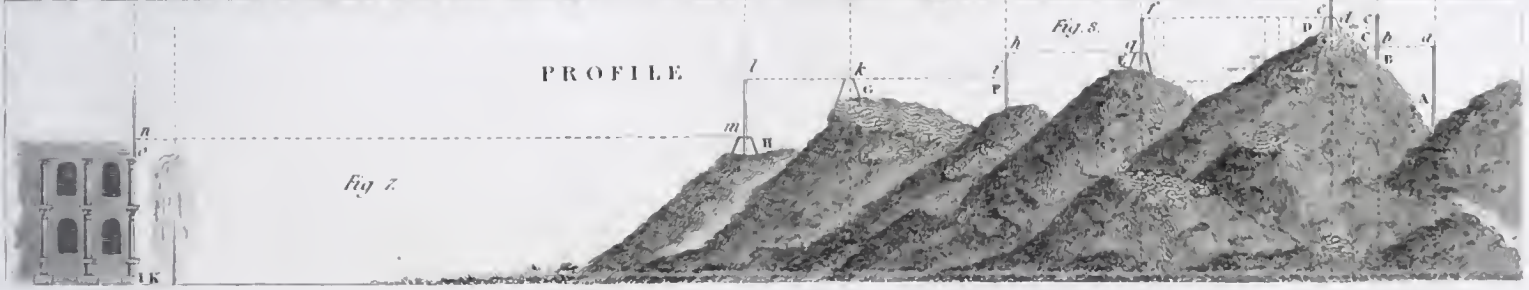

Fig. 7.

Levelling. but an exact profile of the mountain is more difficult, as requiring many operations; though some of these might be obtained by measuring from the level line without moving the instrument.

The last example given by our author is likewise from M. le Febure, and includes a length of near five German miles (25 of ours) in a straight line, and 9 or 10 (45 or 50 English) including the turnings and windings. In this the declivity of the river *Haynox* was measured from Lignebruk to Villebourg. The first operation was to drive stakes at several parts of the river even with the water's edge; the first of which a little above the mills of Lignebruk showed the upper water-mark, and another showed the lower water-mark at the same mills. Two stakes above and below the mills of Maxurance, somewhat more than half way between Lignebruk and Villebourg, pointed out the difference between high and low water there, and formed likewise the third and fourth limits of the operation; while the stakes above and below the mills of Villebourg pointed out the difference between high and low water, and likewise formed the last limits of the operation.

These marks were all made at the edge of the water, exactly even with its surface, and all made at the different parts of the river nearly at the same instant of time. "The principal limits of the levelling (says Mr Adams) being now determined and fixed, it only remains to find the level between the limits, according to the methods already pointed out, using every advantage that may contribute to the success of the work, and at the same time avoiding all obstacles and difficulties that may retard or injure the operations. The first rule is always to take the shortest possible way from one limit to another, though this rule ought not to be followed if there are considerable obstacles in the way, as hills, woods, marshy ground, or if, by going aside, any advantage can be obtained." In the present case it was found necessary to deviate very considerably from the general rule, in order to take in several ponds, the surfaces of which might all be taken for a perfect level; and thus levels were frequently taken across the country for a considerable way. The difference of height between the mills of Lignebruk and Villebourg was at last found to be about 19 feet, indicating a descent of not quite a foot in a mile.

Levelling-Staves, instruments used in levelling, serving to carry the marks to be observed, and at the same time to measure the heights of those marks from the ground. They usually consist of two mahogany staves ten feet long, in two parts, that slide upon one another to about $5\frac{5}{10}$ feet, for the more portable carriage. They are divided into 1000 equal parts, and numbered at every tenth division by 10, 20, 30, &c. to 1000; and on one side the feet and inches are also sometimes marked.

A vane A slides up and down upon each set of these staves, which by brass springs will stand at any part. These vanes are about 10 inches long and 4 inches broad; the breadth is first divided into three equal parts, the two extremes painted white, the middle space divided again into three equal parts, which are less; the middle one of them is also painted white, and the two other parts black; and thus they are suited to all the common distances, These vanes have each a brass wire across a small square hole in the centre, which serves to point out the height correctly, by coinciding with the horizontal wire of the telescope of the level. Levelling ‖ Levite.

LEVEN, a river of Lenox or Dunbartonshire of Scotland. See Lenox.

LEVER, in *Mechanics*, is a bar of iron or wood, one part of which being supported by a prop, all other parts turn upon that prop as their centre of motion. This instrument is of two kinds. First, the common sort, where the weight we desire to raise rests at one end of it, our strength is applied at the other end, and the prop is between both. When we stir up the fire with a poker, we make use of this lever; the poker is the lever, it rests upon one of the bars of the grate as a prop, the incumbent fire is the weight to be overcome, and the other end held in the hand is the strength or power. In this, as in all the rest, we have only to increase the distance between the strength and prop to give the man that works the instrument greater power.

The lever of the second kind has the prop at one end, the strength is applied to the other, and the weight to be raised rests between them. Thus in raising the water-plug in the streets, the workman puts his iron lever through the hole of the plug till he reaches the ground on the other side, and, making that his prop, lifts the plug with his strength at the other end of the lever. In this lever also, the greater the distance of the prop from the strength, the greater is the workman's power.

These instruments, as we see, assist the strength; but sometimes a workman is obliged to act at a disadvantage, in raising either a piece of timber or a ladder upon one end. We cannot, with grammatical propriety, call this a *lever*, since such a piece of timber in fact in no way contributes to raise the weight. In this case, the man who is the strength or power, is in the middle, the part of the beam already raised is the weight, the part yet at the ground is the prop on which the beam turns or rests. Here the man's strength will be diminished in proportion to the weight it sustains. The weight will be greater the farther it is from the prop, therefore the man will bear the greater weight, the nearer he is to the prop. See Mechanics.

LEVERET, among sportsmen, denotes a hare in the first year of her age.

LEVIGATION, in *Pharmacy* and *Chemistry*, the reducing hard and ponderous bodies to an impalpable powder, by grinding them on a porphyry, or in a mill.

LEVITE, in a general sense, means all the descendants of Levi, among whom were the Jewish priests themselves, who, being descended from Aaron, were likewise of the race of Levi. In a more particular sense, *Levite* is used for an order of officers in that church, who were employed in performing the manual service of the temple. They were obedient to the priests in their ministration, and brought them wood, water, and other necessaries for the sacrifice.—They sung and played upon instruments in the temple and in other places. They applied themselves to the study of the law, and were the ordinary judges of the country, but always subordinate to the priests. Their subsistence was the tithes of corn, fruit, and cattle,

throughout

Levite ‖ Leuwenhoek.

throughout Israel: but the priests were entitled to a tenth of their tithes, by way of first fruits to the Lord. Eight and forty cities were assigned for the residence of the Levites, of which the priests claimed thirteen, six whereof were chosen for cities of refuge. They were consecrated, before they entered upon their ministry, by shaving their flesh, washing their clothes, and sprinkling with the water of expiation. Imposition of hands was used in consecration, and two bullocks were offered at the door of the tabernacle. They waited weekly, and by turns, in the temple, beginning their attendance on one sabbath and ending the next: During this time they were maintained out of the offerings, &c. In the time of Solomon, the number of Levites, from the age of 20, and capable of serving, was 30,000.

LEVITICUS, a canonical book of the Old Testament, so called from its containing the laws and regulations relating to the priests, Levites, and sacrifices.

LEVITY, in *Physiology*, the privation or want of weight in any body when compared with another that is heavier than it; in which sense it stands opposed to gravity.

LEUK, a town of Switzerland, almost in the middle of the Valais; remarkable for its natural strength, for the assembly of the states that often meet there, and for its baths, whose water is so hot that it will boil eggs.

LEUSDEN, John, a celebrated philologer, born in 1624. He studied the learned languages and mathematics at Utrecht; and then went to Amsterdam, to converse with the rabbis, and perfect himself in the Hebrew tongue. After which he was professor of Hebrew at Utrecht, where he acquired a great reputation, and died in 1699. He wrote many valuable works; the principal of which are, 1. *Onomasticum Sacrum*, 8vo. 2. *Clavis Hebraica et Philologica Veteris Testamenti*, 4to. 3. *Novi Testamenti Clavis Græca, cum Annotationibus Philologicis*, 8vo. 4. *Compendium Biblicum Veteris Testamenti*, 8vo. 5. *Compendium Græcum Novi Testamenti*; the best edition of which is that of London, in 1668, 12mo. 6. *Philologus Hebræus*, 4to. 7. *Philologus Hebræo mixtus*, 4to. 8. *Philologus Hebræo-Græcus*, 4to. 9. Notes on Jonas, Joel, Hosea, &c. He also gave correct editions of several learned works.

LEUTKIRK, a town of Germany in Suabia, seated on a rivulet that falls into the Illar. It is now subject to Wirtemberg. E. Long. 10. 10. N. Lat. 47. 53.

LEUTMERITZ, a town of Bohemia, capital of a circle of the same name, with a bishop's see, seated on the river Elbe, in E. Long. 14. 25. N. Lat. 50. 34.

LEUWENHOEK, Antony, a celebrated Dutch philosopher, was born at Delft in 1632, and acquired an extensive reputation all over Europe, by means of his discoveries and experiments in natural history, which were made by him with the microscope. He particularly excelled in making glasses for microscopes and spectacles; and he was a member of most of the literary societies of Europe, to which he sent a number of valuable memoirs. Those in the Philosophical Transactions and in the Paris Memoirs, extend through many volumes; the former were extracted and published at Leyden, in 1722. He died in 1723, at 91 years of age.

Leuwenhoek ‖ Lewes.

LEVY, in *Law*, signifies to gather or collect; as to levy money, and to levy a fine of lands in the passing a fine.

LEWARDEN, a handsome, rich, and strong town of the United Provinces, capital of Ostergow, Westergow, Sevenwolden, and West Friesland. It was the usual place of residence of the Stadtholder; and in buildings, as well public as private, is very magnificent. It has several canals running through the streets, which are of great service to their trade, especially as they are continued to the sea and to the most considerable towns of the province. E. Long. 5. 42. E. Lat. 53. 12.

LEWDNESS. See Fornication.—Lewdness is punishable by our law by fine, imprisonment, &c. And Mich. 15 Car. II. a person was indicted for open lewdness, in showing his naked body in a balcony, and other misdemeanors; and was fined 2000 merks, imprisoned for a week, and bound to his good behaviour for three years. 1 Sid. 168. In times past, when any man granted a lease of his house, it was usual to insert an express covenant, that the tenant should not entertain any lewd women, &c.

LEWENTZ, a town of Upper Hungary, in the county of Gran, and on the river of the same name, where the Turks were defeated in 1644. E. Long. 18. 16. N. Lat. 48. 15.

LEWES, a large well built town of Sussex, in England, seated on an eminence on the banks of the Ouse, 50 miles from London. It is famous for a bloody battle fought near it, wherein King Henry III. was defeated and taken prisoner by the barons; and is so ancient, that we read the Saxon king Athelstan appointed two mint-houses here, and that in the reign of Edward the Confessor it had 127 burgesses. It is a borough by prescription, by the style of constables and inhabitants. The constables are chosen yearly. It has handsome streets and two suburbs, with six parish churches. It carries on a great trade; and the river Ouse runs through it, which brings goods in boats and barges from a port eight miles off. On this river are several iron-works, where cannon are cast for merchant ships, besides other useful works. A charity-school was opened here in 1711, where 20 boys are taught, clothed, and maintained, at the expence of a private gentleman, by whom they were also furnished with books; and 8 boys more are taught here at the expence of other gentlemen. Here are horse-races almost every summer for the king's plate of 100l. The roads here are deep and dirty; but then it is the richest soil in this part of England. The market here is on Saturday; and the fairs May 6. Whitsun-Tuesday, and October 2. The timber of this part of the county is prodigiously large. The trees are sometimes drawn to Maidstone and other places on the Medway, on a sort of carriage called a *tug*, drawn by 22 oxen a little way, and then left there for other tugs to carry it on; so that a tree is sometimes two or three years drawing to Chatham; because, after the rain is once set in, it stirs no more that year, and sometimes a whole summer is not dry enough to make the roads passable. It is cheap living here; and the town

Lewes, Lewis.

town not being under the direction of a corporation, but governed by gentlemen, it is reckoned an excellent retreat for half-pay officers who cannot so well confine themselves to the rules of a corporation. It sends two members to parliament. Population 6221 in 1811.

LEWIS, one of the largest of the Hebrides, or Western islands of Scotland, extending about 60 miles in length from north to south, and from 13 to 14 in breadth, consisting of a great number of isles and rocks, and parted by the sea into two divisions, called *Lewis* and *Harries*, the former lying to the westward of the other. Lewis belongs to the shire of Ross; is divided by several channels, distinguished by several names, and portioned out among different proprietors; but the *Lewis*, strictly so called, stretches about 36 miles in length, from the north point of Bowling-head to the southern extremity of Hussiness in Harrics. The air is temperately cold, moist, and healthy; great part of the low ground is flooded with lakes; the rest is arable in many places, and has been counted fruitful in oats, barley, rye, flax, and hemp. The soil in these parts is a light sand, which the inhabitants manure with soot and sea-ware: but great part of the island is covered with heath. The labouring people dig the land with spades, and break the clods with small harrows, the foremost teeth of which are made of wood, and the remainder of rough heath, which smooths what the others have broken; and this harrow is drawn by one man, having a strong trace of horse-hair across his breast. Of their corn they not only make malt for ale, but likewise a strong spirit called *trestareg*, which is the whisky, or usquebaugh, three times distilled. Lewis abounds with convenient bays and harbours, in which are caught, in great plenty, cod, ling, and herring: here are likewise whales of different sizes, which the natives drive into the bays, and kill with harpoons. These bays afford great plenty of shell-fish, such as clams, oysters, cockles, mussels, limpets, welks; and such a prodigious quantity of spout-fish is sometimes cast up from the sand off Lochtua, that they infect the air, and render it unhealthy to the neighbouring inhabitants, who are not able to consume them, either by eating, or using them as manure for the ground. Some of these lochs and bays likewise produce small coral and coralline. The fresh-water lakes are well stored with trout and eels, and the rivers yield plenty of salmon. Along the coast are found a great number of caves, which serve as shelter for the seals and otters, which are also eaten as dainties by the inhabitants; and vast numbers of sea-fowl build upon the rocks and promontories.

The land animals reared in this island, are cows, horses, sheep, goats, hogs, and deer; all these are of a diminutive size. The beef, mutton, and pork, are juicy and delicious; the horses are active and hardy; the deer, which are of the red kind, confine themselves to the chace of Oservaul, about 15 miles in compass, which affords tolerable pasturage; but in the winter, when the ground is covered with frost and snow, these animals are forced to feed on sea-ware, and endure all the rigour of the season, without any shelter from wood or copse, for there is not a tree to be seen; nevertheless, the roots of very large trees, which have been cut by the axe, are found in different places. There is likewise a small grove of birch and hazel on the south-west side of Loch Stornaway. Lewis.

The inhabitants of Lewis are well-proportioned, tall, fair, sanguine, strong, and healthy. They are in general sober, circumspect, and hospitable; dexterous in shooting, swimming, and leaping; bold and skilful mariners; and so temperate, that they will tug at the oar all day, without any other provision than bread and water, with a snush of tobacco.

Along this coast we see several natural mounts, or forts, called *Duns*; such as Dun-rowly, Dun-Coradel, and Dun-eisten. There are also the remains of some old castles, and other monuments of antiquity. At Stornaway village we see the ruins of a fortress destroyed by the English garrison sent thither by Oliver Cromwell. To the northward of Brago there is round tower built of large stones, three stories high, tapering towards the top, with a double wall, and a circular staircase between, by which one may go quite round the building. On the heaths and summits of hills there are several cairns or heaps of stones, which served either for graves or beacons. In the parish of Barvas we see a single stone called the *thrushel*, standing upright, above 20 feet high, and almost as much in breadth. Three stones, about 12 feet high each, are seen standing on the north side of Loch Carlvay; and many others standing single at great distances, and in remote parts of the island. But the most remarkable monument of this kind appears by the village of Classerniss. Here we find 39 pyramidal stones standing upright, about six or seven feet high from the surface, each about two feet in breadth. They are placed in form of an avenue, eight feet wide; the distance between every stone amounting to six feet, and a single piece stands at the entrance. This avenue leads to a circle of 12 stones of the same dimensions, with one in the centre 13 feet in length, and shaped like a rudder: on the east, south, and west sides of this circle, are four stones, such as those that compose this round and avenue, forming three lines, or as it were rays from the body of the circle. This is supposed to have been a Druid temple; and tradition reports, that the chief Druid stood by the large stone in the centre, and harangued the audience. At the distance of a quarter of a mile there is another circle of the same nature; but without the range and avenue. In all probability, these, as well as the monuments we have described in our account of the Orkneys, and Stonehenge on Salisbury plain, were places of worship erected by the Druids in time of Pagan superstition. The chief town in Lewis is STORNAWAY.

There is a considerable number of inferior adjacent isles and rocks, some of which hardly deserve to be mentioned: such as the small island Garve at the mouth of Loch Carlvay, Berinsay, Fladda, Bernera Minor and Bernera Major, Kialisay, Cavay, Carvay, Grenim, Pabay, Shirem, Vexay, Wuya the Larger and Lesser, and the Flannan islands, which the seamen denominate the *northern hunters*. These are visited every summer by the inhabitants of the Lewis, who go thither in quest of fowls, eggs, down, quills, and feathers, as well as to shear or kill the sheep that are kept here for pasture. As these islands are very steep and rocky, the visitors, after having landed and

Lewis. climbed up the rock by a ladder, uncover their heads, and, making a turn sun-ways, thank God for having escaped the danger they have undergone. In the largest island are the ruins of a chapel dedicated to St Flannan, from whom the isles derive their name. Thither the fowlers repairing, strip themselves of their upper garments, which being laid upon a stone, they advance towards the altar, and repeat three prayers; an exercise which is performed every morning and evening. They observe many other superstitious customs during their residence on these rocks; and when they have landed their boat with their purchase, return to the larger islands. Among the islands belonging to the Lewis, we may likewise take notice of the small isle of Pigmies, so called, because, it is said, bones resembling those of human creatures, but of very small dimensions, have been dug out of the ground.

The island of Lewis is divided into the two parishes of Barvas and Eye, and in each of these one minister is settled; but there is a great number of churches and chapels dedicated to different saints, in the different isles which compose this cluster. All these were sanctuaries before the Reformation, but now they are divested of that privilege. The people of these islands are Presbyterians, with a few Protestants of the English communion, and a still smaller number of Roman Catholics. The Protestants observe the festivals of Christmas, Good Friday, Easter, and Michaelmas; on the last of which the individuals of both sexes perform an anniversary cavalcade. Population 13,942.

LEWIS, or *Louis*, the name of several kings of France. See FRANCE.

LEWIS VII. anno 1137, was the first who had the courage to oppose the encroachments of the popes on the regal authority: Pope Innocent II. excommunicated him for appointing an archbishop of Bourges; but Lewis defended his prerogatives, and put the priests to death who had been the authors of the quarrel. In 1147, he put himself at the head of an army of 80,000 men, and marched against the Saracens, in the second crusade, but was defeated; and returning into France by sea, was taken by the Greeks, but rescued by Roger king of Sicily. His queen Eleonora accompanied him in this expedition; and being suspected of infidelity with Saladin, a young Turk, Lewis divorced her, and she was married six weeks after to Henry duke of Normandy, (Henry II. king of England). Lewis died in 1180, aged 60.

LEWIS IX. anno 1226 (canonized), was one of the greatest monarchs of France, equally memorable for his valour and his virtues; but, unfortunately misled by the superstition of the times, he sacrificed his own repose, and the welfare of his kingdom, to the folly of crusading. In 1248, leaving France to the care of his mother, he embarked for Egypt, attended by his queen, his three brothers, and the flower of the French nobility. At first his victories were rapid; he took Damietta in 1249; but the following year he was defeated and taken prisoner by the Turks, with all the nobility in his train, and the greatest part of his army. The sultan sent to him in prison, to demand an exorbitant sum for his ransom; and his answer being truly noble, deserves to be recorded: "Tell the sultan, that a king of France is not to be ransomed with money; I will give the sum required for my people, and Damietta for myself." These terms were accepted, and a peace of ten years ensued. Upon his return to France, he diminished the taxes, revoked those which the cupidity of the financiers had introduced; issued several salutary edicts; founded several churches and hospitals; and effectually overturned the ecclesiastical jurisdiction of the court of Rome, by his pragmatic sanction in 1269, which established the independency of the Gallican church. Thirteen years residence in his capital indemnified his subjects for his absence; but his pious zeal prevented the enjoyment of this happiness: he embarked for the sixth crusade in 1270; and died the same year, at the siege of Tunis, aged 55. Lewis.

LEWIS XI. anno 1461. His oppressions obliged his subjects to enter into a league against him, styled, "*Ligue de bien publiq*," in which his brother the duke of Berri and some of the principal nobility were concerned: they solicited succours from John duke of Calabria, who joined them with 500 Swiss (the first introduction of Swiss soldiers into the French armies). His reign was almost one continued scene of civil war; and it is computed, that 4000 of his subjects were executed in public and privately, either for being in arms against him, or suspected by him. In his last illness, he drank the warm blood of children, in the vain hope of restoring his decayed strength. He died in 1483, aged 60. The posts for letters were established in his reign, owing to his eagerness for news; the first institution of this nature in Europe.

LEWIS XII. anno 1462, styled *the Just*, and *the Father of his people;* memorable for his valour in the field, and his wisdom in the cabinet. A great general; but unfortunate towards the end of his reign, when he did not command his troops in person: his orders transmitted from home were misunderstood, or wilfully disobeyed; and he had the mortification, before he died, to see the total expulsion of the French from the possessions he had acquired for them by his personal bravery. At 53 years of age, he married the princess Mary of England, sister of Henry VIII. and being of a delicate constitution, fell a victim (according to the French historians) to amorous dalliance; for he died in about two months after his nuptials, in 1515.

LEWIS XIII. anno 1610, increased the military reputation of his country, and made considerable additions to its domains. The beginning of his reign was occupied in civil wars with his mother and his Protestant subjects; in which he was excited to continue by his famous minister Cardinal Richelieu, who attended him to the siege of Rochelle, the bulwark of the Huguenot party. This place was reduced by famine to surrender, in 1628, after a siege of more than a year. Upon this and other occasions, the king gave proofs of great personal bravery. His attachment to his ally the duke de Nevers, who succeeded to the duchy of Mantua, but was refused the investiture by Charles VI. emperor of Germany, involved him in a war with that prince, the Spaniards, and the duke of Savoy; in which Lewis was victorious; and obtained a treaty of peace, by which the duke of Mantua was guaranteed in the possession of his dominions. In 1635, a new war broke out between France and Spain, and the emperor took part with the latter: it lasted, 13 years against the emperor, and 25 against Spain, with various

Lewis, Lex.

various success; and the different armies kept on foot in the Low Countries, on the frontiers of France, and in Italy, in the first years of this war, paved the way for the signal victories of Louis XIV. the campaigns of these armies being a military school of discipline and experience for the French officers, besides giving them a knowledge of the countries which became the seat of war in the next reign. Lewis XIII. died 1643, aged 41.

Lewis XIV. *le Grand* (king at five years of age), anno 1643. He was at first styled *Dieu-donne*, because the French considered him as the gift of heaven granted to their prayers after the queen had been barren 22 years. This princess (Anne of Austria) was declared regent by Lewis XIII. and saw herself under a necessity to continue the war against Philip IV. king of Spain her brother. The duke d'Enghien was made general of the French armies; and so signal was the success of this renowned warrior (afterwards prince of Condé, and known by the style of *the great Condé*), that his victories brought on the advantageous treaties of Munster, in 1648, between France, the emperor Ferdinand III. and Christina queen of Sweden: See Britain, *United Provinces*, &c. Lewis XIV. died in 1715, aged 77.

Lewis XV. (his great-grandson) succeeded in 1715. He was styled, in the course of his reign, *the well beloved*, which he lost some years before he died; and was detested and despised by his subjects for his shameful attachment to a *mistress*, who, through her patron the duke d'Aiguillon, governed the kingdom, and invaded the ancient rights and privileges of the people. He died in 1774, in the 64th year of his age and 59th of his reign.

Lewis XVI. the most unfortunate of his race, and perhaps the most enlightened and virtuous of all the sovereigns of France. He was guillotined 21st January 1793. For an account of his life and character, see the article France.

LEX, Law. See Law.—The Roman laws were of three kinds: 1st, Such as were made by their kings. 2d, the laws of the twelve tables brought by the *Decemviri* from Athens, &c. And, 3. Such as were proposed by the superior magistrates in the times of the republic. The laws of this last class were enacted in the following manner.

No law could be proposed but by some of the following magistrates, viz. the *prætor*, the *consuls*, the *dictator*, the *interrex*, the *decemviri*, the *military tribunes*, *triumviri*, and *tribunes* of the people. If any of these proposed a law, it was first committed to writing, and privately examined as to its utility and probable consequences, by some persons well qualified for the task; sometimes it was referred to the whole senate for their sentiments. It was then hung up publicly for three market days, that all the people might have time to examine it, and consider its tendency: This was called *legis promulgatio, quasi provulgatio*. If the person who framed the bill did not see cause in the mean time to drop it, the people were convened in *comitia*, and he addressed them in an oration, being also seconded by his friends, setting forth the expediency and probable utility of such a law: This was called *rogatio legis*, because the address was always prefaced with this petitionary form of words, *Velitis jubeatisne, Quirites?* "Will you, O Romans, consent and order this law to pass?" This being done, those that disliked the motion delivered their sentiments in opposition to it. An urn was then brought to certain priests who attended upon the occasion, into which were cast the names of the tribes, centuries, or *curiæ*, as the *comitia* happened to be *tributa*, *centuriata*, or *curiata*. The names were shaken together; and the first-drawn tribe or century was called *prærogativa*, because their suffrages were first taken. The *curia* that was first drawn was called *principium* for the same reason. The other tribes, centuries, &c. were called *tribus jure vocatæ*, *centureæ jure vocatæ*, &c.

Lex Leyden.

Matters being in this situation, the *veto* or negative voice of the tribunes of the people might put an entire end to the proceedings, and dissolve the assembly. The tribune's interference was called *intercessio*. The consul also had it in his power to stop further proceedings, by commanding any of the holidays called *feriæ imperativæ* to be observed. The *comitia* would of course be dissolved also by any of the persons present being seized with the falling sickness, or upon the appearance of an unlucky omen. But supposing the business to meet with no interruption of this sort, the people were each of them presented with two tablets, on one of which was written in large characters A. on the other U. R. Their disapprobation of the bill was expressed by throwing into an urn the tablet inscribed A. signifying "I forbid it;" *antiquo*, "I prefer the old." Their assent was signified by throwing in the tablet marked U. R. i. e. *uti rogas*, "be it as you desire." According to the majority of these tablets the law passed or not. If it passed, it was written upon record, and carried into the treasury; this was called *legem ferre*. Afterwards it was engraved upon plates of brass, and hung up in the most public and conspicuous places: this was termed *legem figere*, and a future repeal of this law was *legem refigere*.

If a law passed in the *comitia curiata*, it was called *lex curiata*; if in the *comitia centuriata*, it had the name of *lex centuriata*; but if it passed in the *comitia tributa*, it was termed *plebiscitum*. The laws, too, generally bore the names of the proposers, as *lex Ælia*, *lex Fusia*, &c.

Romulus used to make laws by his own single authority, but succeeding kings sought the approbation of the people.

LEXIARCHI, at Athens, six officers, assisted by 30 inferior ones, whose business it was to lay fines upon such as came not to the public assemblies, and also to make scrutiny among such as were present.

The lexiarchi kept a register of the age, manners, and abilities of the citizens, who were always enrolled at the age of 20.

LEXICON, the same with dictionary. The word is chiefly used in speaking of Greek dictionaries: it is derived from the Greek λεξις, *word*, *diction*; of λεγω, *I speak*.

LEXINGTON, a town of North America, and considered as the capital of Kentucky. It stands on the head waters of Elkhorn river. Here the courts are held, and business regularly conducted. In 1818 it contained about 7000 inhabitants, and several stores, with a good assortment of dry goods. There are manufactures of cottons and woollens, flannels, blankets, &c.

LEYDEN, in Latin *Lugdunum Batavorum*, one of the largest and finest cities in Holland, abounds with

Leyden ‖ Lhuyd.

canals, along which are rows of lofty trees that afford very pleasant walks. An arm or small branch of the Rhine runs through it. Over the canals are 145 bridges, most of them of stone or brick. The university here is the oldest in the United Provinces: it has large privileges; a library well furnished, and particularly rich in manuscripts; a physic-garden well stocked with all sorts of plants, many of which have been brought from the Cape of Good Hope and the East Indies; an anatomy hall, well provided with skeletons; and an observatory. The professors, who are generally very eminent, read public lectures four times a-week, for which they take no money, but about three guineas are paid for a course of private lectures, which lasts a whole year. The students have no distinct habit, but all wear swords, though they generally go to the public and private lectures in their night-gowns and slippers. The salaries of the professors are from 100l. to 200l. a-year: they wear gowns only when they preside at public disputations, read public lectures, or meet in the senate; and their lectures are always in Latin. The students do not lodge in the university, but where they please in the town. The cloth manufacture here is much decayed, which formerly flourished to such a degree, that 100,000 pieces, it is said, have sometimes been made in a year. The city is famous for the long and severe siege it maintained in 1573 against the Spaniards. We cannot help mentioning the reply of that illustrious magistrate, Adrian de Verf, when the citizens represented to him the havoc made by the famine during the siege, and insisted upon his surrendering: "Friends (said he), here is my body, divide it among you to satisfy your hunger, but banish all thoughts of surrendering to the cruel and perfidious Spaniards." They took his advice, in regard to their not surrendering, and never would listen to any overtures; but told the Spaniards, they would hold out as long as they had one arm to eat and another to fight. There are some fine churches here, and many long, broad, handsome, streets; but the Papists, as at Haerlem, are more numerous than the Protestants.

Leyden Phial, a phial coated on the inside and outside with tinfoil, or other proper conducting substance, and furnished with a brass wire and knob, for giving the electrial shock. See Electricity *Index*.

Lucas Van Leyden. See Lucas.

LEYSERA, a genus of plants belonging to the syngenesia class; and in the natural method ranking under the 49th order, *Compositæ*. See Botany *Index*.

LEYTE, one of the Philippine islands in the East Indies, situated in E. Long. 118. 0. N. Lat. 11. 0. Its greatest length is about 40 leagues, and its circumference about 90 or 100. Its soil on the east side is very fruitful; but there are very high mountains which cut it almost through the middle, and occasion so great an alteration in the air, that when it is winter on the north side, it is summer on the southern part of the island. Thus when the inhabitants of one half of the island reap the others sow; and they have two plentiful harvests in a year, to which the rivers running down from the above-mentioned mountains contribute not a little. The island contains about 9000 inhabitants, who pay tribute to the Spaniards in rice, wax, and quilts.

LHUYD, or Lhoyd, *Humphrey*, a learned antiquarian of the 16th century, born at Denbigh, who applied himself to the study of physic; and living mostly within the walls of Denbigh castle, practised there as a physician; and died in 1570, with the character of a well-bred gentleman. He wrote and translated several pieces relative to history and antiquities; in particular, The History of Cambria, now called *Wales*, from Caradoc of Langcarvan, &c. but died before it was finished: however, Sir Henry Sidney, lord president of Wales, employed Dr David Powel to finish it, who published it in 1584. A new and improved edition of this work was published in 1774.

Lhuyd.

Lhuyd, *Edward*, keeper of the museum at Oxford, was a native of South Wales, the son of Charles Lhuyd, Esq. of Lhanvorde. He was educated at Jesus College, Oxford, where he was created M. A. July 21. 1701. He was bred under Dr Plot, whom he succeeded as keeper of the Ashmolean museum, and had the use of all Vaughan's collection. With incessant labour and great exactness he employed a considerable part of his life in searching into the Welsh antiquities; and perused or collected a great deal of ancient and valuable matter from their MS.; transcribed all the old charters of the monasteries that he could meet with; travelled several times over Wales, Cornwall, Scotland, Ireland, Armoric Bretagne, countries inhabited by the same people; compared their antiquities, and made observations on the whole; but died in July 1709, before he had digested them into the form of a discourse, as he intended, on the ancient inhabitants of this island. The untimely death of this excellent antiquary prevented the completing of many admirable designs. For want of proper encouragement, he did very little towards understanding the British bards, having seen but one of those of the sixth century, and not being able to procure access to two of the principal libraries in the country. He communicated many observations to Bishop Gibson, whose edition of the *Britannia* he revised; and published "*Archæologia Britannica*, giving some account additional to what has been hitherto published of the languages, histories, and customs, of the original inhabitants of Great Britain, from collection and observations in travels through Wales, Cornwall, Bas Bretagne, Ireland, and Scotland, vol. i. Glossography, Oxford, 1707." fol. He left in MS. a Scottish or Irish-English Dictionary, proposed to be published in 1732 by subscription, by Mr David Malcome, a minister of the church of Scotland, with additions; as also the Elements of the said language; with necessary and useful informations for propagating more effectually the English language, and for promoting the knowledge of the ancient Scottish or Irish, and very many branches of useful and curious learning. Lhuyd, at the end of his preface to the Archæologia, promises an historical dictionary of British persons and places mentioned in ancient records. It seems to have been ready for press, though he could not set the time of publication. His collections for a second volume, which was to give an account of the antiquities, monuments, &c. in the principality of Wales, were numerous and well chosen; but, on account of a quarrel between him and Dr Wynne, then fellow, afterwards principal of the college, and bishop of St Asaph, he refused to buy them, and they were purchased by Sir Thomas Seabright, of Beachwood in Hertfordshire, in whose library the greatest

Lhuyd ‖ Libation.

greatest part still remain, but so indigested, and written with so many abbreviations, that nobody can undertake to publish them. They consist of about 40 volumes in folio, 10 in quarto, and above 100 smaller, and all relate to Irish or Welsh antiquities, and chiefly in those languages. Carte made extracts from them about or before 1736; but these were chiefly historical. Sir John Seabright has given Mr Pennant 23 of Lhuyd's MSS. Latin and English. Many of his letters to Lister, and other learned contemporaries, were given by Dr Fothergill to the university of Oxford, and are now in the Ashmolean museum. Luyhd undertook more for illustrating this part of the kingdom than any one man besides ever did, or than any one man can be equal to.

LIBANIUS, a famous Greek rhetorician and sophist in the 4th century, was born at Antioch, and had a great share in the friendship of Julian the Apostate. That prince offered him the dignity of *præfectus pretorio*; but Libanius refnsed it, thinking the name of *sophist*, or *professor of eloquence*, much more honourable. There are still extant several of his letters and Greek orations, by which he acquired great reputation: but his style is somewhat affected and obscure He was a Pagan. Basil and Chrysostom were his disciples about the year 360. His letters were published at Amsterdam in 1738; his orations at Venice, 1755.

LIBANOMANTIA, in antiquity, a species of divination performed with frankincense; which, if it presently caught fire, and sent forth a grateful odour, was esteemed a happy omen, and *vice versa*.

LIBANUS, the name of a chain of mountains of Turkey in Asia, which lie between Proper Syria, and Palestine, extending from west to east, from the Mediterranean sea as far as Arabia. The summits of these mountains are so high, that they are always covered with snow; but below are very pleasant and fruitful valleys. They were formerly famous for the great number of cedar trees growing thereon; but now there are very few remaining. Geographers distinguish this chain into Libanus and Antilibanus; the latter of which lies on the south side of the valley, rising near the ruins of Sidon, and terminates at others in Arabia, in N. Lat. 34. They are separated from each other at an equal distance throughout, and form a bason, or country, called by the ancients *Cœlo-Syria*.

LIBATION, amongst the Greeks and Romans, was an essential part of solemn sacrifices. It was also performed alone, as a drink-offering, by way of procuring the protection and favour of the gods, in the ordinary affairs of life. Libations, according to the different natures of the gods in honour of whom they were made, consisted of different liquids, but wine was the most usual. The wine offered to the gods was always unmixed with water. We meet with libations of water, libations of honey, libations of milk, and libations of oil; these are called νηφαλια ιερα. The libation was made with a serious deportment and solemn prayer. At sacrifices, the libation, after it had been tasted by the priest, and handed to the bystanders, was poured upon the victim. At entertainments, a little wine was generally poured out of the cup, before the liquor began to circulate, to show their gratitude to the gods for the blessings they enjoyed.

Libation ‖ Libel.

Libations were also in use among the Hebrews, who poured a kind of wine on the victim after it was killed, and the several pieces of the sacrifice were laid on the altar, ready to be consumed in the flames.

LIBAW, a sea-port town of Courland, lying on the Baltic sea, consisting entirely of wooden houses. It belongs to Russia, and is situated in E. Long. 21. 27. N. Lat. 56. 27.

LIBEL, (*libellus famosus*), taken in its largest and most extensive sense, signifies any writing, picture, or the like, of an immoral or illegal tendency; but, in a peculiar sense, is used to denote a malicious defamation of any person, and especially a magistrate, made public by either printing, writing, signs or pictures, in order to provoke him to wrath, or expose him to public hatred, contempt and ridicule. The direct tendency of these libels is the breach of the public peace, by stirring up the objects of them to revenge, and perhaps to bloodshed. The communication of a libel to any one person is a publication in the eye of the law: and therefore the sending an abusive private letter to a man is as much a libel as if it were openly printed, for it equally tends to a breach of the peace.

With regard to libels in general, there are, as in many other cases, two remedies; one by indictment, and another by action. The former for the *public* offence; for every libel has a tendency to break the peace, or provoke others to break it: which offence is the same whether the matter contained be true or false; and therefore the defendant, on an indictment for publishing a libel, is not allowed to allege the truth of it by way of justification. But in the remedy by action on the case, which is to repair the party in damages for the injury done him, the defendant may, as for words spoken, justify the truth of the facts, and show that the plaintiff has received no injury at all. What was said with regard to words spoken, will also hold in every particular with regard to libels by writing or printing, and the civil actions consequent thereupon: but as to signs or pictures, it seems necessary always to show, by proper inuendos and averments of the defendant's meaning, the import and application of the scandal, and that some special damage has followed; otherwise it cannot appear, that such libel by picture was understood to be levelled at the plaintiff, or that it was attended with any actionable consequences.

In a civil action, then, a libel must appear to be false, as well as scandalous; for, if the charge be true, the plaintiff has received no private injury, and has no ground to demand a compensation for himself, whatever offence it may be against the public peace: and therefore, upon a civil action, the truth of the accusation may be pleaded in bar of the suit. But, in a criminal prosecution, the tendency which all libels have to create animosities, and to disturb the public peace, is the sole consideration of the law. And therefore, in such prosecutions, the only points to be considered are, first, the making or publishing of the book or writing; and, secondly, whether the matter be criminal: and, if both these points are against the defendant, the offence against the public is complete.

Libel ‖ Liber.

complete. The punishment of such libellers, for either making, repeating, printing, or publishing the libel, is a fine, and such corporal punishment as the court in its discretion shall inflict; regarding the quantity of the offence, and the quality of the offender. By the law of the twelve tables at Rome, libels, which affected the reputation of another, were made a capital offence: but, before the reign of Augustus, the punishment became corporal only. Under the emperor Valentinian it was again made capital, not only to write, but to publish, or even to omit destroying them. Our law, in this and many other respects, corresponds rather with the middle age of Romish jurisprudence, when liberty, learning, and humanity, were in their full vigour, than with the cruel edicts that were established in the dark and tyrannical ages of the ancient decemviri, or the latter emperors.

In this, and other instances, where blasphemous, immoral, treasonable, schismatical, seditious, or scandalous libels are punished by the English law, some with a greater, others with a less degree of severity, the *liberty of the press*, properly understood, is by no means infringed or violated. See *Liberty of the Press*.

LIBELLA, a piece of money amongst the Romans, being the tenth part of the denarius, and equal in value to the as. It was called *libella*, as being a little pound, because equal to a pound of brass.—Its value in our money is 1 ob. 1 qu. or a halfpenuy farthing. See Money.

Libella, or *Libellula*, a genus of four-winged flies, called in English *dragon-flies* or *adder-flies*. See Entomology *Index*.

LIBELLI, was the name given to the bills which were put up amongst the Romans, giving notice of the time when a show of gladiators would be exhibited, with the number of combatants, and other circumstances. This was called *munus pronunciare* or *proponere*. —These bills were sometimes termed *edicta*. These public notices were given by the person who designed to oblige the people with the show, and were frequently attended with pictures representing the engagement of some celebrated gladiators. This custom is alluded to by Horace, lib. ii. sat. vii. 96, &c.

There was also the *famosus libellus*, a defamatory libel. Seneca calls them *contumeliosi libelli*, infamous rhymes, which by a Roman ordnance were punishable with death. *Libellus* also in the civil law signifies the declaration, or state of the prosecutor's charge against the defendant; and it has the like signification in our spiritual courts.

LIBER, in vegetables, the bark or rind, principally of trees. This is to be conceived as consisting of a number of cylindric and concentric surfaces whose texture is reticular, and in some trees plainly extrusible every way, by reason that the fibres are soft and flexible. While in this condition, they are either hollow regular canals, or, if not so, they have interstitial spaces which serve the office of canals. The nutritious juice which they are continually receiving, remains in part in them, makes them grow in length and thickness, and strengthens and brings them closer together; and by this means the texture which was before reticular becomes an assemblage of straight fibres ranged vertically and parallel to each other; that is, as they are thus altered behind one another, they by degrees become a new substance, more woody, called *blea*.

Liber ‖ Libertines.

LIBERA, in *Mythology*, the name of a goddess, which Cicero in his book Of the Gods, represents as the daughter of Jupiter and Ceres. Ovid in his Fasti says, that the name was given by Bacchus to Ariadne.

Libera is exhibited on medals as a kind of female Bacchus, crowned with vine leaves.

LIBERAL arts, are such as depend more on the labour of the mind than on that of the hands; or, that consist more in speculation than operation; and have a greater regard to amusement and curiosity than to necessity.

The word comes from the Latin *liberalis*, which among the Romans signified a person who was not a slave; and whose will, of consequence, was not checked by the command of any master.

Such are grammar, rhetoric, painting, sculpture, architecture, music, &c. The liberal arts used formerly to be summed up in the following Latin verse:

Lingua, Tropus, Ratio, Numerus, Tonus, Angulus, Astra.

And the mechanical arts, which, however, are innumerable, under this:

Rus, Nemus, Arma, Faber, Vulnera, Lana, Rates.

See Arts.

LIBERALIA, feasts celebrated by the ancient Romans, in honour of Liber or Bacchus, the same with those which the Greeks called Dionysia, and *Dionysiaca*.

They took their name from *liber*, i. e. *free*, a title conferred on Bacchus in memory of the liberty or freedom which he granted to the people of Bœotia; or perhaps, because wine, whereof he was the reputed deity, delivers men from care, and sets their mind at ease and freedom. Varro derives the name of this feast from *liber*, considered as a noun adjective, and signifying *free;* because the priests were free from their function, and eased of all care, during the time of the liberalia: as the old women officiated in the ceremonies and sacrifices of these feasts.

LIBERIA, in Roman antiquity, a festival observed on the 16th of the kalends of April, at which time the youth laid aside their juvenile habit for the toga virilis, or habit peculiar to grown men. See the article Toga.

LIBERTINES, Libertini, in ecclesiastical history, a religious sect, which arose in the year 1525, whose principal tenets were, that the Deity was the sole operating cause in the mind of man, and the immediate author of all human actions; that, consequently, the distinctions of good and evil, which had been established with regard to those actions, were false and groundless, and that men could not, properly speaking, commit sin; that religion consisted in the union of the spirit or rational soul with the Supreme Being; that all those who had attained this happy union, by sublime contemplation and elevation of mind, were then allowed to indulge, without exception or restraint, their appetites or passions; that all their actions and pursuits were then perfectly innocent; and that, after the death of the body, they were to be united to the Deity. They likewise said that Jesus Christ was nothing but a mere *je ne sçai quoi*, composed of the spirit of God, and of the opinion of men.

These maxims occasioned their being called *Libertines;*

Libertines || Liberty.

tines; and the word has been used in an ill sense ever since.

The *Libertini* spread principally in Holland and Brabant. Their leaders were one Quintin a Picard, Pockesius, Ruffus, and another called Chopin, who joined with Quintin, and became his disciple.

This sect obtained a certain footing in France through the favour and protection of Margaret, queen of Navarre, and sister to Francis I. and found patrons in several of the reformed churches. This sect was probably a remnant of the more ancient Beguards or Brethren of the Free Spirit.

Libertines of Geneva, were a cabal of rakes rather than of fanatics; for they made no pretences to any religious system, but pleaded only for the liberty of leading voluptuous and immoral lives. This cabal was composed of a certain number of licentious citizens, who could not bear the severe discipline of Calvin, who punished with rigour not only dissolute manners, but also whatever bore the aspect of irreligion and impiety. In this turbulent cabal there were several persons who were not only notorious for their dissolute and scandalous manner of living, but also for their atheistical impiety and contempt of all religion. To this odious class belonged one Gruet, who denied the divinity of the Christian religion, the immortality of the soul, and difference between moral good and evil, and rejected with disdain the doctrines that are held most sacred among Christians; for which impieties he was at last brought before the civil tribunal, in the year 1550, and condemned to death. The Genevan spirit of reformation, improperly directed by the violence and zeal of Calvin, did at this time operate to a degree which has marked the character of this great reformer with reproach. For in 1544, Sebastian Castalio, master of the public school at Geneva, who was a man of probity, and distinguished by his learning and taste, was nevertheless deposed from his office, and banished the city, because he disapproved some of the measures that were pursued and some of the opinions entertained by Calvin and his colleagues, and particularly that of absolute and unconditional predestination. Jerome Bolsec also, a man of genius and learning, who became a convert to the Protestant religion and fled to Geneva for protection, was cast into prison, and soon after sent into banishment, because, in 1551, he imprudently and indecently declaimed, in full congregation and at the close of public worship, against the doctrine of absolute decrees.

LIBERTUS, or Libertinus, among the Romans, a freedman, or a person set free from a legal servitude.

These still retained some mark of their ancient state: he who made a slave free having a right of patronage over the *libertus*: so that if the latter failed of showing due respect to his patron, he was restored to his servitude; and if the *libertus* died without children, his patron was his heir. See Slave.

In the beginning of the republic, *libertinus* denoted the son of a *libertus* or freedman; but afterwards, before the time of Cicero, and under the emperors, the terms *libertus* and *libertinus*, as Suetonius has remarked, were used as synonymous.

LIBERTY, denotes a state of freedom, in contradistinction to *slavery* or *restraint*; and may be considered as either *natural* or *civil*. Liberty.

The absolute rights of man, considered as a free agent, endowed with discernment to know good from evil, and with power of choosing those measures which appear to him to be most desirable, are usually summed up in one general appellation, and denominated the *natural liberty of mankind*. This natural liberty consists properly in a power of acting as one thinks fit, without any restraint or control, unless by the law of nature; being a right inherent in us by birth, and one of the gifts of God to man at his creation, when he endued him with the faculty of free-will. But every man, when he enters into society, gives up a part of his natural liberty, as the price of so valuable a purchase; and, in consideration of receiving the advantages of mutual commerce, obliges himself to conform to those laws which the community has thought proper to establish. And this species of legal obedience and conformity is infinitely more desireable than that wild and savage liberty which is sacrificed to obtain it. For no man, that considers a moment, would wish to retain the absolute and uncontrouled power of doing whatever he pleases: the consequence of which is, that every other man would also have the same power; and then there would be no security to individuals in any of the enjoyments of life.

Political, therefore, or *civil* liberty, which is that of a member of society, is no other than natural liberty, so far restrained by human laws (and no farther) as is necessary and expedient for the general advantage of the public. Hence we may collect, that the law, which restrains a man from doing mischief to his fellow-citizens, though it diminishes the natural, increases the civil liberty of mankind: but every wanton and causeless restraint of the will of the subject, whether practised by a monarch, a nobility, or a popular assembly, is a degree of tyranny. Nay, that even laws themselves, whether made with or without our consent, if they regulate and constrain our conduct in matters of mere indifference, without any good end in view, are laws destructive of liberty: whereas, if any public advantage can arise from observing such precepts, the controul of our private inclinations, in one or two particular points, will conduce to preserve our general freedom in others of more importance, by supporting that state of society which alone can secure our independence. Thus the statute of King Edward IV. which forbade the fine gentlemen of those times (under the degree of a lord) to wear pikes upon their shoes or boots of more than two inches in length, was a law that savoured of oppression; because, however ridiculous the fashion then in use might appear, the restraining it by pecuniary penalties could serve no purpose of common utility. But the statute of King Charles II. which prescribes a thing seemingly as indifferent, viz. a dress for the dead, who were all ordered to be buried in woollen, is a law consistent with public liberty; for it encourages the staple trade, on which in great measure depends the universal good of the nation. So that laws, when prudently framed, are by no means subversive, but rather introductive, of liberty; for (as Mr Locke has well observed) where there is no law

there

Liberty. there is no freedom. But then, on the other hand, that constitution or frame of government, that system of laws, is alone calculated to maintain civil liberty, which leaves the subject entire master of his own conduct, except in those points wherein the public good requires some direction or restraint.

The idea and practice of this political or civil liberty, flourish in their highest vigour in these kingdoms, where it falls little short of perfection, and can only be lost or destroyed by the folly or demerits of its owner; the legislature, and of course the laws of Britain, being peculiarly adapted to the preservation of this inestimable blessing even in the meanest subject. Very different from the modern constitutions of other states on the continent of Europe, and from the genius of the imperial law; which in general are calculated to vest an arbitrary and despotic power, of controuling the actions of the subject, in the prince, or in a few grandees. And this spirit of liberty is so deeply implanted in our constitution, and rooted even in our very soil, that a slave or a negro, the moment he lands in Britain, falls under the protection of the laws, and so far becomes a freeman; though his master's right to his service may possibly still continue.

The absolute rights of every Briton (which, taken in a political and extensive sense, are usually called their *liberties*), as they are founded on nature and reason, so they are coeval with our form of government; though subject at times to fluctuate and change, their establishment (excellent as it is) being still human. At some times we have seen them depressed by overbearing and tyrannical princes; at others, so luxuriant as even to tend to anarchy, a worse state than tyranny itself, as any government is better than none at all. But the vigour of our free constitution has always delivered the nation from these embarrassments: and, as soon as the convulsions consequent on the struggle have been over, the balance of our rights and liberties has settled to its proper level; and their fundamental articles have been from time to time asserted in parliament, as often as they were thought to be in danger:

Blackst. Comment. First, By the great charter of liberties, which was obtained, sword in hand, from King John, and afterwards, with some alterations, confirmed in parliament by King Henry III. his son. Which charter contained very few new grants; but, as Sir Edward Coke observes, was for the most part declaratory of the principal grounds of the fundamental laws of England. Afterwards, by the statute called *confirmatio cartarum*, whereby the great charter is directed to be allowed as the common law; all judgments contrary to it are declared void; copies of it are ordered to be sent to all cathedral churches, and read twice a-year to the people; and sentence of excommunication is directed to be as constantly denounced against all those that by word, deed, or counsel, act contrary thereto, or in any degree infringe it. Next, By a multitude of subsequent corroborating statutes (Sir Edward Coke reckons 32), from the first Edward to Henry IV. Then, after a long interval, by *the petition of right*; which was a parliamentary declaration of the liberties of the people, assented to by King Charles I. in the beginning of his reign. Which was closely followed by the still more ample concessions made by that unhappy prince to his parliament, before the fatal rupture between them; Liberty. and by the many salutary laws, particularly the *habeas corpus* act, passed under Charles II. To these succeeded the *bill of rights*, or declaration delivered by the lords and commons to the prince and princess of Orange, 13th February 1688; and afterwards enacted in parliament, when they became king and queen: which declaration concludes in these remarkable words; "and they do claim, demand, and insist upon, all and singular the premises, as their undoubted rights and liberties." And the act of parliament itself recognises "all and singular the rights and liberties asserted and claimed in the said declaration to be the true, ancient, and indubitable rights of the people of this kingdom." Lastly, These liberties were again asserted at the commencement of the last century, in the *act of settlement*, whereby the crown was limited to his present majesty's illustrious house: and some new provisions were added, at the same fortunate era, for better securing our religion, laws, and liberties; which the statute declares to be "the birthright of the people of England," according to the ancient doctrine of the common law.

Thus much for the *declaration* of our rights and liberties. The rights themselves, thus defined by these several statutes, consist in a number of private immunities; which will appear, from what has been premised, to be indeed no other, than either that *residuum* of natural liberty, which is not required by the laws of society to be sacrificed to public convenience; or else those civil privileges, which society hath engaged to provide, in lieu of the natural liberties so given up by individuals. These therefore were formerly, either by inheritance or purchase, the rights of all mankind; but, in most other countries of the world, being now more or less debased and destroyed, they at present may be said to remain, in a peculiar and emphatical manner, the rights of the people of Britain. And these may be reduced to three principal or primary articles; the right of personal security, the right of personal liberty, and the right of private property: because, as there is no other known method of compulsion, or of abridging man's natural free-will, but by an infringement or diminution of one or other of these important rights, the preservation of these inviolate may justly be said to include the preservation of our civil immunities in their largest and most extensive sense. See the article RIGHTS.

In vain, however, would these rights be declared, ascertained, and protected by the dead letter of the laws, if the constitution had provided no other method to secure their actual enjoyment. It has therefore established certain other auxiliary subordinate rights of the subject, which serve principally as barriers to protect and maintain inviolate the three great and primary rights, of personal security, personal liberty, and private property. These are,

1. The constitution, powers, and privileges of parliament; for which see PARLIAMENT.

2. The limitation of the king's prerogative, by bounds so certain and notorious, that it is impossible he should exceed them without the consent of the people; as to which, see PREROGATIVE. The former of these keeps the legislative power in due health and vigour, so as to make it improbable that laws should be

Liberty.

be enacted destructive of general liberty: the latter is a guard upon the executive power, by restraining it from acting either beyond or in contradiction to the laws that are framed and established by the other.

3. A third subordinate right of every Briton is that of applying to the courts of justice for redress of injuries. Since the law is, in this realm, the supreme arbiter of every man's life, liberty, and property, courts of justice must at all times be open to the subject, and the law be duly administered therein. The emphatical words of *magna charta*, spoken in the person of the king, who in judgment of law (says Sir Edward Coke) is ever present and repeating them in all his courts, are these: *Nulli vendemus, nulli negabimus, aut differemus rectum vel justitiam;* "and therefore every subject (continues the same learned author), for injury done to him *in bonis, in terris, vel persona*, by any other subject, be he ecclesiastical or temporal, without any exception, may take his remedy by the course of the law, and have justice and right for the injury done to him, freely without sale, fully without any denial, and speedily without delay." It were endless to enumerate all the *affirmative* acts of parliament, wherein justice is directed to be done according to the law of the land: and what the law is, every subject knows, or may know if he pleases: for it depends not upon the arbitrary will of any judge; but is permanent, fixed, and unchangeable, unless by authority of parliament. We shall however just mention a few *negative* statutes, whereby abuses, preversions, or delays of justice, especially by the prerogative, are restrained. It is ordained by *magna charta*, that no freeman shall be outlawed, that is, put out of the protection and benefit of the laws, but according to the law of the land. By 2 Edw. III. c. 8. and 11 Ric. II. c. 10. it is enacted, that no commands or letters shall be sent under the great seal, or the little seal, the signet or privy seal, in disturbance of the law; or to disturb or delay common right: and, though such commandments should come, the judges shall not cease to do right; which is also made a part of their oath by statute 18 Edw. III. stat 4. And by 1 W. and M. st. 2. c. 2. it is declared, that the pretended power of suspending or dispensing with laws, or the execution of laws, by regal authority without consent of parliament, is illegal.

Not only the substantial part, or judicial decisions, of the law, but also the formal part, or method of proceeding, cannot be altered but by parliament: for, if once those outworks were demolished, there would be an inlet to all manner of innovation in the body of the law itself. The king, it is true, may erect new courts of justice: but then they must proceed according to the old established forms of the common law. For which reason it is declared in the statute 16 Car. I. c. 10. upon the dissolution of the court of star-chamber, that neither his majesty, nor his privy-council, have any jurisdiction, power, or authority, by English bill, petition, articles, libel, (which were the course of proceeding in the star-chamber, borrowed from the civil law), or by any other arbitrary way whatsoever, to examine, or draw into question, determine, or dispose of the lands or goods of any subjects of this kingdom; but that the same ought to be tried and determined in the ordinary courts of justice, and by *course of law*.

Liberty.

4. If there should happen any uncommon injury, or infringement of the rights before mentioned, which the ordinary course of law is too defective to reach, there still remains a fourth subordinate right, appertaining to every individual, namely, the right of petitioning the king, or either house of parliament, for the redress of grievances. In Russia we are told that the czar Peter established a law, that no subject might petition the throne till he had first petitioned two different ministers of state. In case he obtained justice from neither, he might then present a third petition to the prince; but upon pain of death, if found to be in the wrong. The consequence of which was, that no one dared to offer such third petition; and grievances seldom falling under the notice of the sovereign, he had little opportunity to redress them. The restrictions, for some there are, which are laid upon petitioning in Britain, are of a nature extremely different; and while they promote the spirit of peace, they are no check upon that of liberty. Care only must be taken, lest, under the pretence of petitioning, the subject be guilty of any riot or tumult; as happened in the opening of the memorable parliament in 1640; and, to prevent this, it is provided by the statute 13 Car. II. st. 1. c. 5. that no petition to the king, or either house of parliament, for any alteration in church or state, shall be signed by above 20 persons, unless the matter thereof be approved by three justices of the peace, or the major part of the grand jury, in the country; and in London, by the lord mayor, aldermen, and common-council: nor shall any petition be presented by more than ten persons at a time. But, under these regulations, it is declared by the statute 1 W. and M. st. 2. c. 2. that the subject hath a right to petition; and that all commitments and prosecutions for such petitioning are illegal.

5. The fifth and last auxiliary right of the subject, that we shall at present mention, is that of having arms for their defence, suitable to their condition and degree, and such as are allowed by law. Which is also declared by the same statute 1 W. and M. st. 2. c. 2. and is indeed a public allowance, under due restrictions, of the natural right of resistance and self-preservation, when the sanctions of society and laws are found insufficient to restrain the violence of oppression.

In these several articles consist the rights, or, as they are frequently termed, *the liberties of Britons*: liberties more generally talked of than thoroughly understood; and yet highly necessary to be perfectly known and considered by every man of rank or property, lest his ignorance of the points whereon they are founded should hurry him into faction and licentiousness on the one hand, or a pusillanimous indifference and criminal submission on the other. And we have seen that these rights consist, primarily, in the free enjoyment of personal security, of personal liberty, and of private property. So long as these remain inviolate, the subject is perfectly free; for every species of compulsive tyranny and oppression must act in opposition to one or other of these rights, having no other object upon which it can possibly be employed.

Liberty. To preserve these from violation, it is necessary that the constitution of parliaments be supported in its full vigour; and limits, certainly known, be set to the royal prerogative. And, lastly, To vindicate these rights, when actually violated or attacked, the subjects of Britain are entitled, in the first place, to the regular administration and free course of justice in the courts of law; next, to the right of petitioning the king and parliament for redress of grievances; and, lastly, to the right of having and using arms for self-preservation and defence. And all these rights and liberties it is our birthright to enjoy entire; unless where the laws of our country have laid them under necessary restraints: Restraints in themselves so gentle and moderate, as will appear upon farther inquiry, that no man of sense or probity would wish to see them slackened. For all of us have it in our choice to do every thing that a good man would desire to do; and are restrained from nothing, but what would be pernicious either to ourselves or our fellow-citizens. So that this review of our situation may fully justify the observations of a learned French author, who indeed generally both thought and wrote in the spirit of genuine freedom; and who hath not scrupled to profess, even in the very bosom of his native country, that the British is the only nation in the world where political or civil liberty is the direct end of its constitution. Recommending, therefore, to the student in our laws a farther and more accurate search into this extensive and important title, we shall close our remarks upon it with the expiring wish of the famous Father Paul to his country, "ESTO PERPETUA!"

LIBERTY and Necessity. See METAPHYSICS.

LIBERTY of the Press. The art of printing, soon after its introduction, was looked upon in England, as well as in other countries, as merely a matter of state, and subject to the coërcion of the crown. It was therefore regulated with us by the king's proclamations, prohibitions, charters of privilege and license, and finally by the decrees of the court of star-chamber, which limited the number of printers, and of presses which each should employ, and prohibited new publications unless previously approved by proper licensers. On the demolition of this odious jurisdiction in 1641, the long parliament of Charles I. after their rupture with that prince, assumed the same powers as the star-chamber had exercised with respect to the licensing of books: and in 1643, 1647, 1649, and 1652 (Scobell. i. 44, 134. ii. 88, 230.) issued their ordinances for that purpose, founded principally on the star-chamber decree of 1637. In 1662 was passed the statute 13 and 14 Car. II. c. 33. which, with some few alterations, was copied from the parliamentary ordinances. This act expired in 1679; but was revived by statute 1 Jac. II. c. 17. and continued till 1692. It was then continued for two years longer by statute 4 W. and M. c. 24. but though frequent attempts were made by the government to revive it in the subsequent part of that reign, (Com. Journ. 11 Feb. 1694, 26 Nov. 1695, 22 Oct. 1696, 9 Feb. 1697, 31 Jan. 1698), yet the parliament resisted it so strongly, that it finally expired, and the press became properly free in 1694, and has continued so ever since.

The liberty of the press, however, so essential to the nature of a free state, consists not in freedom from censure for any criminal matter that may be published, but in laying no previous restraints upon publications. Every freeman has undoubtedly a right to lay what sentiment he pleases before the public; to forbid this, is to destroy the freedom of the press: but if he publishes what is improper, mischievous, or illegal, he must take the consequence of his own temerity *. To subject the press to the restrictive power of a licenser in the manner above mentioned, is to subject all freedom of sentiment to the prejudices of one man, and make him the arbitrary and infallible judge of all controverted points in learning, religion, and government. But to punish (as the law does at present) any dangerous or offensive writings which, when published, shall, on a fair and impartial trial, be adjudged of a pernicious tendency, is necessary for the preservation of peace and good order, of government and religion, the only solid foundations of civil liberty. Thus the will of individuals is still left free; the abuse only of that free will is the object of legal punishment. Neither is any restraint hereby laid upon freedom of thought or inquiry; liberty of private sentiment is still left; the disseminating or making public of bad sentiments, destructive of the ends of society, is the crime which society corrects. A man (says a fine writer on this subject) may be allowed to keep poisons in his closet, but not publicly to vend them as cordials. And to this we may add, that the only plausible argument heretofore used for restraining the just freedom of the press, "that it was necessary to prevent the daily abuse of it," will entirely lose its force, when it is shown (by a seasonable exertion of the laws) that the press cannot be abused to any bad purpose without incurring a suitable punishment: whereas it can never be used to any good one when under the controul of an inspector. So true will it be found, that to censure the licentiousness, is to maintain the liberty of the press.

Liberty || Libethrius.

* See *Libel.*

LIBERTY, in *Mythology*, was a goddess both among the Greeks and Romans. Among the former she was invoked under the title *Eleutheria*; and by the latter she was called *Libertas*, and held in singular veneration. Temples, altars, and statues, were erected in honour of this deity. A very magnificent temple was consecrated to her on Mount Aventine, by Tiberius Gracchus, before which was a spacious court, called *atrium libertatis*. The Romans also erected a new temple in honour of Liberty, when Julius Cæsar established his empire over them, as if their liberty had been secured by an event which proved fatal to it. In a medal of Brutus, Liberty is exhibited under the figure of a woman, holding in one hand a cap, the symbol of liberty, and two poniards in the other, with the inscription IDIBVS MARTIIS.

LIBETHRA, in *Ancient Geography*, the fountain of song, was situated in Magnesia, a district of Macedonia, annexed to Thessaly; distinct from the town of Libethra, which stood on Mount Olympus, where it verges towards Macedonia: hence the muses are called *Libethrides*, (Virgil). Strabo places on Helicon, not only Hippocrene, and the temple of the Muses, but also the cave of the nymphs Libethrides.

LIBETHRIUS MONS, in *Ancient Geography*, a mountain of Bœotia, distant from Coronea 40 stadia; where

Libethrius & Libra.

where stood the statues of the Muses, and of the nymphs surnamed *Libethrides:* a mountain probably conjoined with, or at least very near to, Helicon.

LIBITINA, in the Roman mythology, a goddess which presided over funerals. This goddess was the same with the *Venus infera* or *Epithymbia* of the Greeks. She had a temple at Rome, where was lodged a certain piece of money for every person who died, whose name was recorded in a register called *Libitinæ ratio.* This practice was established by Servius Tullius, in order to obtain an account of the number of annual deaths in the city of Rome, and consequently the rate of increase or decrease of its inhabitants.

LIBITINARII, were undertakers whose office it was to take care of funerals, prepare all things necessary upon this solemn occasion, and furnish every article required.—They got their livelihood by this gloomy business, and kept a number of servants to perform the working part of the profession, such as the *pollinctores, vespillones,* &c. The name *Libitinarii* is derived from *Libitina,* the goddess of funerals, in whose temple were sold all things relating to funerals. See FUNERAL.

LIBNA, in *Ancient Geography,* a sacerdotal city in the tribe of Judah, a place of strength, as appears from Sennacherib's laying siege to it, 2 Kings xix. Isaiah xxxvii. In Jerome's time, a village, called *Lobna,* in the territory of Eleutheropolis.

LIBOURNE, a town of France, in Guienne, and in Bourdelois. It is a populous trading town, and is seated on the river Dordogne. W. Long. 0. 10. N. Lat. 44. 45.

LIBRA, or BALANCE, one of the mechanical powers. See BALANCE.

LIBRA, in *Astronomy,* one of the 12 signs of the zodiac, and exactly opposite to Aries; so called because when the sun is in this sign at the autumnal equinox, the days and nights are equal as if weighed in a balance.—The stars in this constellation according to Ptolemy are 17, Tycho 10, Hevelius 20, and Flamstead 51.

LIBRA also denotes the ancient Roman pound, borrowed from the Sicilians, who called it *litra.*

The libra was divided into 12 *unciæ* or ounces, and the ounce into 24 scruples.

The divisions of the libra were, the *uncia,* one twelfth; the *sextans,* one sixth; the *quadrans,* one fourth; the *triens,* one third; the *quincunx,* five ounces; the *semis,* six; the *septunx,* seven; the *bes,* eight; the *dodrans,* nine; the *dextrans,* ten; the *deunx,* eleven; lastly, the *as* weighed twelve ounces or one libra.

The Roman libra was used in France for the proportions of their coin till the time of Charlemagne, or perhaps till that of Philip I. in 1093, their sols being so proportioned, as that 20 of them were equal to the libra. By degrees it became a term of account: and every thing of the value of twenty sols was called a *livre.*

LIBRA pensa, in our law books, denotes a pound of money in weight. It was usual in former days not only to tell the money but to weigh it: because many cities, lords, and bishops, having their mints, coined money, and often very bad too; for which reason, though the pound consisted of 20 shillings, they always weighed it.

Librarii, Library.

LIBRARII, among the ancients, were a sort of copyists who transcribed in beautiful or at least legible characters, what had been written by the notarii in notes and abbreviatures.

LIBRARY, an edifice or apartment destined for holding a considerable number of books placed regularly on shelves; or the books themselves lodged in it.

Some authors refer the origin of libraries to the Hebrews; and observe, that the care these took for the preservation of their sacred books, and the memory of what contained the actions of their ancestors, became an example to other nations, particularly the the Egyptians. Osmanduas, king of Egypt, is said to have taken the hint first; who according to Diodorus, had a library built in his palace, with this inscription over the door, ΨΥΧΗΣ ΙΑΤΡΕΙΟΝ. Nor were the Ptolemies, who reigned in the same country, less curious and magnificent in books.

The Scripture also speaks of a library of the kings of Persia, Ezra v. 17. vi. 1. which some imagine to have consisted of the historians of that nation, and of memoirs of the affairs of state; but, in effect, it appears rather to have been a depository of laws, chargers, and ordinances of the kings. The Hebrew text calls it the *house of treasures,* and afterwards the *house of the rolls,* where the treasures were laid up. We may, with more justice, call that a *library,* mentioned in the second of Esdras to have been built by Nehemiah, and in which were preserved the books of the prophets, and of David, and of the letters of their kings.

The first who erected a library at Athens was the tyrant Pisistratus; and yet Strabo refers the honour of it to Aristotle. That of Pisistratus was transported by Xerxes into Persia, and was afterwards brought back by Seleucus Nicanor to Athens. Long after, it was plundered by Sylla, and re-established by Hadrian. Plutarch says, that under Eumenes there was a library at Pergamus, containing 200,000 books. Tyrannian, a celebrated grammarian, cotemporary with Pompey, had a library of 30,000 volumes. That of Ptolemy Philadelphus, according to A. Gellius, contained 700,000, all in rolls, burnt by Cæsar's soldiers.

Constantine, and his successors, erected a magnificent one at Constantinople; which in the eighth century contained 300,000 volumes, all burnt by order of Leo Isaurus; and, among the rest, one wherein the Iliad and Odyssey were written in letters of gold, on the guts of a serpent.

The most celebrated libraries of ancient Rome, were the Ulpian, and the Palatine. They also boast much of the libraries of Paulus Æmilius, who conquered Perseus; of Lucilius Lucullus, of Asinius Pollio, Atticus, Julius Severus, Domitius Serenus, Pamphilius Martyr, and the emperors Gordian and Trajan.

Anciently, every large church had its library; as appears by the writings of St Jerome, Anastasius, and others. Pope Nicholas laid the first foundation of that of the Vatican, in 1450. It was destroyed by the constable Bourbon, in the sacking of Rome, and restored by Pope Sixtus V. and has been considerably enriched with the ruins of that of Heidelberg, plundered by Count Tilly in 1622. One of the most complete libraries in Europe, was said to be that erected at Florence by Cosmo de Medicis, over the gate whereof is written LABOR ABSQUE LABORE; though it is now

Library. exceeded by that of the French king, begun by Francis I. augmented by Cardinal Richelieu, and completed by M. Colbert.

The emperor's library at Vienna, according to Lambecius consists of 80,000 volumes, and 15,940 curious medals.

The Bodleian library at Oxford, built on the foundation of that of Duke Humphrey, exceeds that of any university in Europe, and even those of all the sovereigns of Europe, except the emperor's and French king's, which are each of them older by 100 years. It was first opened in 1602, and has since found a great number of benefactors; particularly Sir Robert Cotton, Sir H. Savil, Archbishop Land, Sir Kenelm Digby, Mr Allen, Dr Pococke, Mr Selden, and others. The Vatican, the Medicean, that of Bessarion at Venice, and those just mentioned, exceed the Bodleian in Greek manuscripts: which yet outdoes them all in oriental manuscripts.

As to printed books, the Ambrosian at Milan, and that of Wolfenbuttle, are two of the most famous, and yet both inferior to the Bodleian.

King's LIBRARY, at St James's was founded by Henry, eldest son of James I. and made up partly of books, and partly of manuscripts, with many other curiosities, for the advancement of learning. It has received many additions from the libraries of Isaac Casaubon and others.

Cottonian LIBRARY, originally consisted of 958 volumes of original charters, grants, instruments, letters of sovereign princes, transactions between this and other kingdoms and states, genealogies, histories, registers of monasteries, remains of Saxon laws, the book of Genesis, thought to be the most ancient Greek copy extant, and said to have been written by Origen in the second century, and the curious Alexandrian copy or manuscript in Greek capitals. This library is kept in the British Museum, with the large and valuable library of Sir Hans Sloane, amounting to upwards of 42,000 volumes, &c. There are many public libraries belonging to the several colleges at Oxford and Cambridge, and the universities in North Britain. The principal public libraries in London, beside that of the Museum, are those of the College of Heralds, of the College of Physicians, of Doctors Commons, to which every bishop, at the time of his consecration, gives at least 20l. sometimes 50l. for the purchase of books; those of Gray's Inn, Lincoln's Inn, Inner Temple, and Middle Temple; that of Lambeth, founded by Archbishop Bancroft in 1610, for the use of succeeding archbishops of Canterbury, and increased by the benefactions of Archbishops Abbot, Sheldon, and Tennison, and said to consist of at least 15,000 printed books, and 617 volumes in manuscript; that of Red-Cross street, founded by Dr Daniel Williams, a Presbyterian divine, and since enriched by many private benefactions; that of the Royal Society, called the *Arundelian* or *Norfolk library*, because the principal part of the collection formerly belonged to the family of Arundel, and was given to the Society by Henry Howard, afterwards duke of Norfolk, in 1666, which library has been increased by the valuable collection of Francis Aston, Esq. in 1715, and is continually increasing by the numerous benefactions of the works of its learned members, and others: that of St Paul's, of Sion college, the Queen's library, erected by Queen Caroline in 1737; and the Surgeons library, kept in their hall in the Old Bailey, &c.

Library. Libya.

In Edinburgh there is a good library belonging to the university, well furnished with books; but it is deficient in a catalogue. There is also a noble library of books and manuscripts belonging to the faculty of advocates. See ADVOCATE. The library belonging to the society of writers to the signet, although of less extent, yet in the judicious selection of the best books, and the best editions, which by the attention of the society are now kept in excellent order, is inferior to none in the kingdom.

LIBRATION, in *Astronomy*, an apparent irregularity of the moon's motion, whereby she seems to librate about her axis, sometimes from the east to the west, and now and then from the west to the east. See ASTRONOMY *Index*.

LIBURNIA, in *Ancient Geography*, a district of Illyricum, extending towards the Adriatic between Istria on the west, Dalmatia on the east, and Mount Albius on the north. *Liburni*, the people. The apparitors, who at the command of the magistrate summoned the people from the country, were called *Liburni*, because generally men of *Liburnia*.—*Liburna*, or *Liburnica*, (Horace), denoted a kind of light and swift skiff, ed by the Liburnians in their sea-roving or piracies, for which they were noted. *Liburnum* (Juvenal), was a species of litter made in form of Liburnian skiffs, wherein the noblemen of Rome were carried, and where they sat at their ease either reading or writing.

LIBURNUS, in *Ancient Geography*, a mountain of Campania. Also a port of Tuscany. Now *Livorna*, or *Leghorn*. E. Long. 11. N. Lat. 43. 30.

LIBYA, in general, according to the Greeks, denoted Africa. An appellation derived from *lub*, "thirst," being a dry and thirsty country. See AFRICA.

LIBYA, in a more restrained sense, was the middle part of Africa, extending north and west, (Pliny); between the Mediterranean to the north, and Ethiopia to the east: and was twofold, the *Hither* or *Exterior Libya*; and the *Farther* or *Interior*. The former lay between the Mediterranean on the north, and the *Farther Libya* and Ethiopia beyond Egypt on the south, (Ptolemy). The *Farther* or *Interior Libya* was a vast country, lying between the *Hither Libya* on the north, the Atlantic ocean on the west, the Ethiopic on the south, and Ethiopia, beyond Egypt on the east, (Ptolemy).

LIBYA, in a still more restrained sense, called, for distinction's sake, *Libya Propria*, was a northern district of Africa, and a part of the *Hither Libya*; situated between Egypt to the east, the Mediterranean to the north, the Syrtis Major and the Regio Tripolitana to the west, the Garamantes and Ethiopia beyond Egypt to the south. Now the kingdom and desert of *Barca*. This Libya was again subdivided into *Libya* taken in the strictest sense of all, and into Marmarica and Cyrenaica. *Libya* in the strictest sense, otherwise the *Exterior*, was the most eastern part of *Libya Propria*, next to Egypt, with Marmarica on the west, the Mediterranean on the north, and the Nubi, now called *Nubia*, to the south, (Ptolemy).

LICENSE,

Licence ‖ Licinius.

LICENSE, in *Law*, an authority given to a person to do some lawful act.

LICENSER OF BOOKS, has been an officer in almost every civilized country, till the close of the last century, when it was abolished in Great Britain. It has been proved by Beckmann, that such an office was established, not only in the Roman empire, but also in the republic and the states of Greece. All the copies of the works of Protagoras which could be procured, were burnt at Athens by the public crier, and the satirical works of Labienus shared the same fate under the reign of the emperor Augustus. Not long after the invention of printing, laws were enacted for subjecting books to examination; a regulation which was proposed even by Plato, and which many have since wished for. It appears that the liberty of the press is only a modern privilege, and that it has not been enjoyed in its utmost latitude in any country but Great Britain.

Licenser of the Press. See *Liberty of the Press.*

LICENTIATE, one who has obtained the degree of a license.—The greatest number of the officers of justice in Spain are distinguished by no other title than that of *licentiate*. In order to pass *licentiate* in common law, civil law, and physic, they must have studied seven years, and in divinity ten. Among us a *licentiate* usually means a physician who has a license to practise, granted by the college of physicians.

LICETUS, a celebrated physician of Italy, was born at Rappollo, in the state of Genoa, 1577. He came, it seems, into the world, before his mother had completed the seventh month of her pregnancy; but his father, being an ingenious physician, wrapped him up in cotton, and nurtured him so, that he lived to be 77 years of age. He was trained with great care, and became a very distinguished man in his profession; and was the author of a great number of works: his book *De Monstris* every body must have heard of. He was professor of philosophy and physic at Padua, where he died in 1655.

LICHEN, Liverwort, a genus of plants belonging to the natural order of algæ, in the cryptogamia class. See Botany *Index*.

LICHFIELD. See Litchfield.

LICHTENBERG, a castle of France, in Lower Alsace, and the chief place of a county of the same name; seated on a rock, near the mountains Vosges, and looked upon as impregnable. E. Long. 7. 35. N. Lat. 48. 55.

LICHTENBURG, a town of Germany, in the circle of Franconia, and margravate of Cullembach. E. Long. 12. 0. N. Lat. 50. 26.

LICHTENFELS, a town of Germany, in the circle of Franconia, a bishopric of Bamberg, seated on the river Mayne, in E. Long. 11. 10. N. Lat. 50. 20.

LICHTENSTEIN, a town of Swisserland, in Tockerberg, seated on the river Thour. E. Long. 2. 15. N. Lat. 47. 25.

LICHSTALL, a handsome town of Swisserland, in the county of Basil; seated on the river Ergetz, in E. Long. 7. 57. N. Lat. 47. 40.

LICINIUS Stolo, a famous Roman tribune, styled *Stolo* on account of a law he made, while tribune, that no Roman citizen should possess more than 500 acres of land; alleging, that when they occupied more, they could not cultivate it with care, nor pull up the useless shoots (*stolones*) that grow from the roots of trees. He is memorable also for enacting, that one of the consuls should always be of a plebeian family. He lived about 362 B. B. Licinius ‖ Liddel.

LICNON, in the Dionysian solemnities, the mystical van of Bacchus; a thing so essential to all the solemnities of this god, that they could not be duly celebrated without it. See Dionysia.

LICNOPHORI, in the Dionysian solemnities, those who carried the licnon.

LICOLA, or Lago di Licola, a lake in the kingdom of Naples, formerly famous for plenty of excellent fish; but in the year 1538 an explosion of a volcano changed one part of it into a mountain of ashes, and the other into a morass. It was anciently known by the name of the Lucrine lake.

LICONIA, a genus of plants belonging to the pentandria class. See Botany *Index*.

LICTORS, among the Romans, were officers established by Rumulus, who always attended the chief magistrates when they appeared in public.

The duty of their office consisted in the three following particulars: 1. *Submotio*, or clearing the way for the magistrate they attended: this they did by word of mouth; or, if there was occasion, by using the rods they always carried along with them. 2. *Animadversio*, or causing the people to pay the usual respect to the magistrate, as to alight, if on horseback, or in a chariot; to rise up, uncover, make way, and the like. 3. *Præitio*, or walking before the magistrates: this they did not confusedly, or altogether, nor by two or three abreast, but singly, following one another in a straight line. They also preceded the triumphal car in public triumphs; and it was also part of their office to arrest criminals, and to be public executioners in beheading, &c. Their ensigns were the FASCES and SECURIS.

As to the number of lictors allowed each magistrate, a dictator had twenty-four, a master of the horse six, a consul twelve, a prætor six; and each vestal virgin, when she appeared abroad, had one.

LIDD. See Lydd.

LIDDEL, Dr Duncan, professor of mathematics and of medicine in the university of Helmstadt, was born in the year 1561 at Aberdeen, where he received the first part of his education in languages and philosophy. About the age of eighteen he repaired to the university of Francfort, where he spent three years in a diligent application to mathematics and philosophy. From Francfort he proceeded to Wratislaw, or Breslaw, in Silesia, where he is said to have made uncommon progress in his favourite study of mathematics, under the direction of a very eminent professor, Paulus Wittichius. Having studied at Breslaw for the space of one year, he returned to Francfort and remained there three years, paying the most intense application to the study of physic. A contagious distemper having broken out at that place, the students were dispersed, and Liddel retired to the university of Rostock. Here he renewed his studies, rather as a companion than as a pupil of the celebrated Brucæus, who, though an excellent mathematician, did not scruple to confess that he was instructed by Liddel in the more perfect knowledge of the Copernican system, and other astronomical questions. In 1590 he returned once more to Francfort. But having there heard of the increasing

Liddel, Lidford.

creasing reputation of the Academia Julia, established at Helmstadt by Henry duke of Brunswick, Mr Liddel removed thither; and soon after his arrival was appointed to the first or lower professorship of mathematics. From thence he was promoted to the second and more dignified mathematical chair, which he occupied for nine years, with much credit to himself and to the Julian Academy. In 1596 he obtained the degree of M. D. was admitted a member of that faculty, and began publicly to teach physic. By his teaching and his writings he was the chief support of the medical school at Helmstadt; was employed as first physician at the court of Brunswick, and had much practice among the principal inhabitants of that country. Having been several times elected dean of the faculties both of philosophy and physic, he had in the year 1604 the honour of being chosen protector of the university. But neither academical honours, nor the profits of an extensive practice abroad, could make Dr Liddel forget his native country. In the year 1660 he took a final leave of the Academia Julia; and after travelling for some time through Germany and Italy, he at length settled in Scotland. He died in the year 1613, in the 52d year of his age. By his last will he bestowed certain lands purchased by him near Aberdeen upon the university there, in all time coming, for the education and support of six poor scholars. Among a variety of regulations and injunctions for the management of this charity, he appoints the magistrates of Aberdeen his trustees, and solemnly denounces the curse of God on any person who shall abuse or misapply it. His works are, 1. *Disputationes Medicinales, Helmstadt*, 1603, 4to. 2. *Ars Medica succinctè et perspicuè explicata, Hamburghi*, 1607, 8vo. This performance is dedicated to King James VI. and is divided into five books, viz. *Introductio in totam Medicinam; De Physiologia; De Pathologia; De Signorum doctrina; De Therapeutica.* 3. *De Febribus Libri tres, Hamburghi*, 1610, 12mo. 4. *Tractatus de dente aureo, Hamburghi*, 1628, 12mo. This last performance Dr Liddel published in order to refute a ridiculous story then current of a poor boy in Silesia, who, at seven years of age, having lost some of his teeth, brought forth, to the astonishment of his parents, a new tooth of pure gold. Jacobus Horstius, doctor and professor of medicine in the *Academia Julia*, at the same time with our author, had published a book, which he dedicated to the emperor Rudolphus II. to prove that this wonderful tooth was a prodigy sent from heaven to encourage the Germans then at war with the Turks, and foretelling, from this golden tooth, the future victories of the Christians, with the final destruction of the Turkish empire and Mahometan faith, and a return of the golden age in 1700, preparatory to the end of the world. The imposture was soon after discovered to be a thin plate of gold, skilfully drawn over the natural tooth by an artist of that country, with a view to excite the public admiration and charity. 5. *Artis conservandi Sanitatem, libri duo, Aberdoniæ*, 1651, 12mo; a posthumous work.

LIDFORD, a village of Devonshire in England, situated on the river Lid, two or three miles east of Brent Tor, was formerly a famous town, with a castle. It was much destroyed by the Danes in 997. The village is now small, but the lands in the parish are rich and fertile, the whole forest of Dartmore being in the verge of it. The river here being pent up at the bridge with rocks, has made itself so deep a fall, that the noise of the water only is heard without being seen.

Lidford || Lie.

LIDKOPING, a town of West Gothland in Sweden, seated on the lake Wenar, in E. Long. 13. 40. N. Lat. 58. 25.

LIDNEY, a town of Gloucestershire in England, 71 miles from London, is seated on the west bank of the river Severn. In the neighbourhood are the remains of a large Roman encampment, with foundations of many ancient buildings, among which are the ruins of a Roman hypocaust of an oval form; and Roman antiquities and coins are often found. Mr Bathurst has a fine seat here called *Sydney Park*, in the midst of extensive woods. Population 820 in 1811.

LIE, in morals, denotes a criminal breach of veracity.—Archdeacon Paley, in treating of this subject, observes, that there are falsehoods which are not lies; that is, which are not criminal: and there are lies which are not literally and directly false.

I. Cases of the first class are those, 1. Where no one is deceived: as, for instance in parables, fables, novels, jests, tales to create mirth, or ludicrous embellishments of a story, in which the declared design of the speaker is not to inform, but to divert; compliments in the subscription of a letter; a prisoner's pleading not guilty; an advocate asserting the justice, or his belief of the justice, of his client's cause. In such instance no confidence is destroyed, because none was reposed; no promise to speak the truth is violated, because none was given or understood to be given. 2. Where the person you speak to has no right to know the truth, or more properly where little or no inconveniency results from the want of confidence in such cases; as where you tell a falsehood to a madman for his own advantage; to a robber, to conceal your property; to an assassin, to defeat or to divert him from his purpose. It is upon this principle, that, by the laws of war, it is allowed to deceive an enemy by feints, false colours, spies, false intelligence, and the like; but, by no means, in treaties, truces, signals of capitulation, or surrender: and the difference is, that the former suppose hostilities to continue, the latter are calculated to terminate or suspend them.

Many people indulge in serious discourse a habit of fiction and exaggeration, in the accounts they give of themselves, of their acquaintance, or of the extraordinary things which they have seen or heard; and so long as the facts they relate are indifferent, and their narratives though false are inoffensive, it may seem a superstitious regard to truth to censure them merely for truth's sake. Yet the practice ought to be checked; for, in the first place, it is almost impossible to pronounce beforehand, with certainty, concerning any lie that it is inoffensive; or to say what ill consequences may result from a lie apparently inoffensive: And, in the next place, the habit, when once formed, is easily extended to serve the designs of malice or interest; like all habits, it spreads indeed of itself. Pious frauds, as they are improperly enough called, pretended inspirations, forged books, counterfeit miracles, are impositions of a more serious nature. It is possible that they may sometimes, though seldom, have been set up and encouraged with a design to do good: but the good they aim at requires that the belief of them should

Lie ‖ Liege.

should be perpetual, which is hardly possible; and the detection of the fraud is sure to disparage the credit of all pretensions of the same nature. Christianity has suffered more injury from this cause than from all other causes put together.

II. As there may be falsehoods which are not lies, so there may be lies without literal or direct falsehood. An opening is always left for this species of prevarication, when the literal and grammatical signification of a sentence is different from the popular and customary meaning. It is the wilful deceit that makes the lie; and we wilfully deceive, when our expressions are not true, in the sense in which we believe the hearer apprehends them. Besides, it is absurd to contend for any sense of words, in opposition to usage; for all senses of all words are founded upon usage, and upon nothing else. Or a man may act a lie; as by pointing his finger in a wrong direction, when a traveller inquires of him his road; or when a tradesman shuts up his windows, to induce his creditors to believe that he is abroad: for to all moral purposes, and therefore as to veracity, speech and action are the same; speech being only a mode of action.

LIECHTENAU, a town of Germany, in the circle of Franconia and margravate of Anspach, subject to Nuremberg. E. Long. 9. 5. N. Lat. 48. 43.

LIEGE (*Ligius*), in *Law*, properly signifies a vassal, who holds a kind of fee, that binds him in a closer obligation to his lord than other people.

The term seems to be derived from the French *lier*, "to bind;" on account of a ceremony used in rendering faith or homage: which was by locking the vassal's thumb or his hand in that of the lord, to show that he was fast bound by his oath of fidelity. Cujas, Vigenere, and Bignon, choose rather to derive the word from the same source with *leudis* or *leodi*, "loyal, faithful." But Du Cange falls in with the opinion of those who derive it from *liti*, a kind of vassals, so firmly attached to their lord, on account of lands or fees held of him, that they were obliged to do him all manner of service, as if they were his domestics. He adds, this was formerly called *litigium servitium*, and the person *litge*. In this sense, the word is used, Leg. Edw. cap. 29. *Judæi sub tutela regis ligea debent esse;* that is, wholly under his protection. Liege.

By liege homage, the vassal was obliged to serve his lord towards all, and against all, excepting his father. In which sense, the word was used in opposition to simple homage; which last only obliged the vassal to pay the rights and accustomed dues to his lord; and not to bear arms against the emperor, prince, or other superior lord: so that a liege man was a person wholly devoted to his lord, and entirely under his command. *Omnibus, &c. Reginaldus, rex Insularum, salutem. Sciatis quod deveni homo ligeus domini regis Angliæ Johannis, contra omnes mortales, quamdiu vixero; et inde ei fidelitatem et sacramentum prestiti, &c.* MS. penes W. Dugdale.

But it must be observed, there were formerly two kinds of liege homage: the one, by which the vassal was obliged to serve his lord, against all, without exception even of his sovereign; the other, by which he was to serve him against all, except such other lords as he had formerly owed liege homage to.

In our old statutes lieges, and liege people, are terms peculiarly appropriated to the king's subjects; as being *liges*, *ligi*, or *ligati*, obliged to pay allegiance to him; 8 Henry VI. 14 Hen. VIII. &c. though private persons had their lieges too. *Reinaldus, Dei gratia, abbas Ramesiæ, præposito et hominibus de Brancestre, et omnibus vicinis Francis et Anglis salutem. Sciatis me dedisse terram Ulfe, in depedene (hodie depedale) huic Boselino, et uxori ejus Alfniæ—ea conditione quod effecti sint homines legis.* Lib. Rames.

Liege-Poustie, in *Scots Law*, is opposed to death-bed; and signifies a person's enjoying that state of health in which only he can dispose of his property at pleasure.

THE END OF THE ELEVENTH VOLUME.

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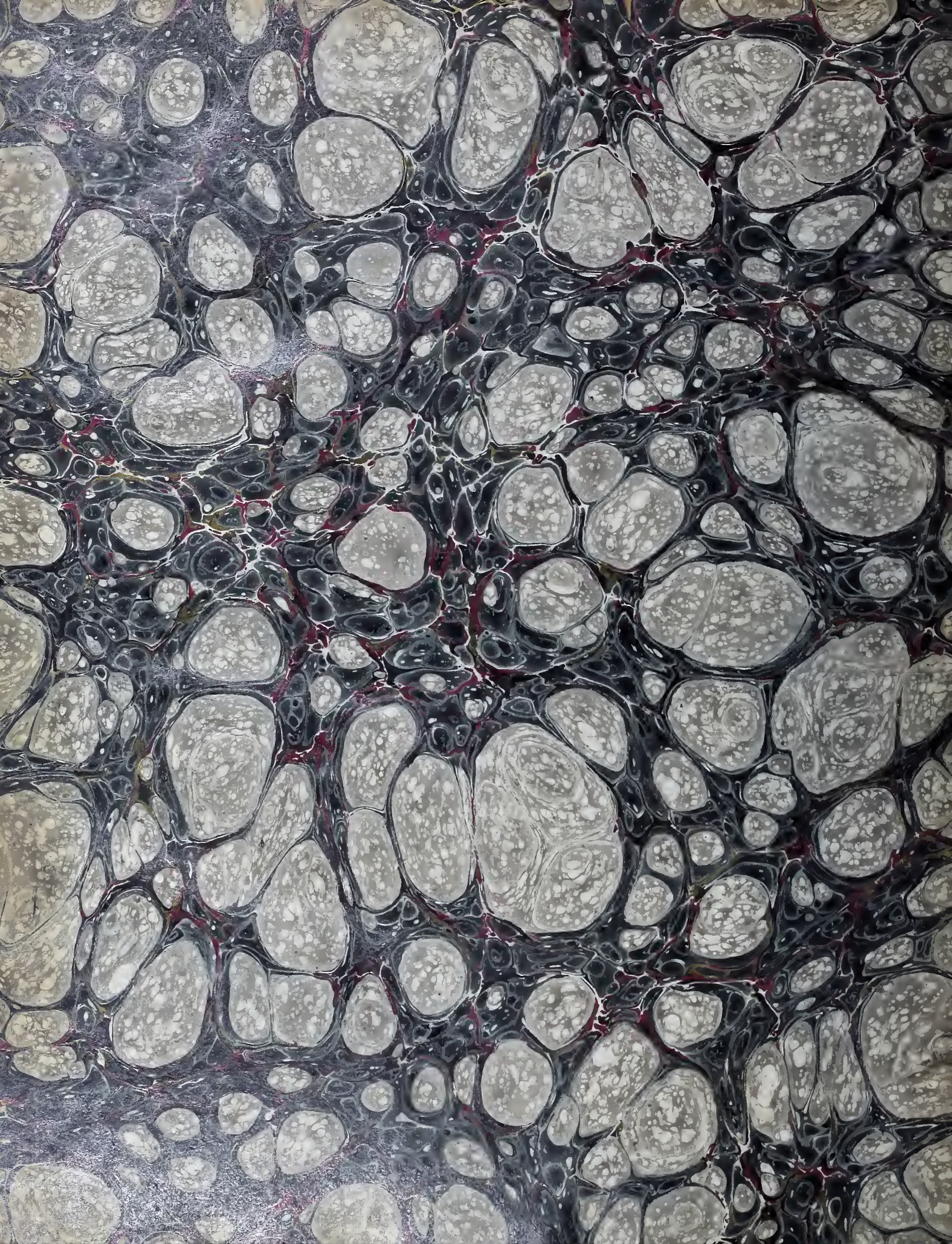
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